ABSTRACT
OF A
Clinical Lecture
ON
WHOOPING-COUGH.

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THE occurrence of a case of whooping-cough in Burdett ward reminds me to lay before you to-day some of the points of interest and difficulty in the pathology of this affection. The secret of whooping-cough must yield to clinical inquiry. Its special features and attributes are to be seen and studied in its living incidents; death leaves no discernible trace of them. Yet, common as the disease is, opportunity seldom occurs, in the course of hospital practice, of observing it adequately. The mere inspection of children in the intervals of their paroxysms, as in the out-patient room, is of little service. To study whooping-cough you must live with it. Thus it happens that experienced mothers come to know more about the disease than some practitioners, and, as a consequence, this most prevalent and least understood of infantile maladies, rarely met with in our wards, and as yet beyond the scrutiny of the pathologist, is regarded as belonging to the province of the nursery, and in the routine of clinical teaching is almost neglected.

The literature of the subject reflects these sentiments. Whooping-cough is very easily dismissed by medical writers. In the necessary absence of post-mortem illustration, there is a singular want of material on which to found or to test conclusions. Much of what has been published has reference to particular specifics, and the multitude of these alleged cures for the disease,—infallible to-day, and forgotten to-morrow,—is no less remarkable than the contrariety of opinion as to its actual nature.

What first strikes attention in reviewing the phenomena of whooping-cough is the apparent incompatibility of its several factors. It claims alliance with nervous affections, with zymotic diseases, and with ordinary catarrh. If we say that it is a nervous disease, whence then has it the property of affecting others, or of protecting the present sufferer for the future? If we class it with the exanthemata, the absence of fever, indefinite duration, and mode of origin make it quite anomalous in that relation. If we insist that it is but an incident of child's bronchitis—a cough whose special character is due to peculiarities in the innervation and mode of breathing of early life, how, then, should convulsive cough become contagious, or a single attack of such cough provide future immunity?

If you consult books, you will find whooping-cough, like most other affections, divided into three stages, corresponding respectively with its approach, its presence, and its departure. There is thus the stage of incubation or latency, the stage of the fully-developed disease, and the stage of gradual decline. Yet the idea of uniformity which such a division suggests is not borne out by the reality. Whooping-cough is, in fact, stubborn to definition. It would be truer to say that it breaks in anyhow upon ordinary catarrh, that it accompanies such catarrh on and off for an indefinite time, and that its final departure, although usually gradual, is sometimes quite sudden and abrupt.

It is true, indeed, that the catarrh which precedes whooping-cough is often marked by a degree of pyrexia out of proportion to the apparent lung derangement, and that on this account, as well as from the early character of the cough, the approach of the disease may be often predicted. But it is true also both that such prediction is not always verified and that the materials for forming it are not always present. The catarrh which precedes whooping-cough cannot fairly be represented as having anything special or constant about it. There may be little or no catarrh throughout, or catarrh and whoop may begin almost together, or catarrh may be lengthened out indefinitely for a month or more before the character of the cough excites notice. Moreover, it is by no means rare for whooping-cough to stop all at once in mid-career upon change of air, and it is quite common for it to stop for a while and then return.

That in the course of catarrh young children should come to cough paroxysmally is not of itself wonderful. The circumstances seem to lend themselves to such an occurrence. With the known characters of childish respiration, its diaphragmatic mechanism, weak inspiratory force, and the special liability of childhood to pulmonary collapse and to muscular spasm—peculiarities which remain so long as a marked tendency to whooping-cough remains,—the more striking features of the disease, its spasm during life, and the condition of lungs found after death,* would seem to be accountable, and such as we might expect. Yet how should the convulsive spasm or the collapsed lung be either the source or the consequence of contagion?

In this obscurity we shall best find our way by following with confidence a single clue, satisfied that nature is not inconsistent. The several phenomena which are here combined have, we may be sure, some real and necessary connexion which rightly observed will not contradict but illustrate pathological laws. To reach that point of view it is necessary to consider in turn the nature of whooping-cough spasm, the actual mode of its conveyance from person to person, and the bearing of the fact that as a rule the affection occurs but once to the same individual.

What happens in the whooping-cough fit we know. By a rapid succession of violent expiratory efforts with no intervening inspiration, the child's lungs are partially emptied of air. To this occurrence there succeeds a sudden involuntary inspiratory effort, which yet, owing to a simultaneous spasm of the glottis, only partially refills the chest, giving rise at the same time to that crowing whoop from which the disease is recognised and named. Such a paroxysm may be longer or shorter, single or repeated, followed or not by general convulsion, but it has certain features which are constant. First. So long as the cough lasts, air is continually driven out, none enters; auscultation detects no inspiratory act whatever; percussion discovers a perceptible diminution of chest resonance as the cough proceeds. Secondly. The involuntary inspiration is not free or unopposed; it is met by a partial spasmodic closure of the glottis. So soon, indeed, as the larynx ceases so to act, this, the main feature of the disease, disappears. The *whooping*-cough, and, as some think, the danger of contagion, are no more. And, without trenching upon hypothesis, we may go a step further. By this whooping-cough spasm the rapid rhythmical movements of the diaphragm, by means of which the child breathes, are suddenly suspended; we have in their place a violent and continuous expulsion of air from the chest, whereby the space occupied by the lungs is considerably diminished. With the continuance of the cough paroxysm these organs come to occupy less and less room, while, in proportion to their decreasing bulk, the relaxed and for the time paralysed diaphragm mounts higher and higher within the chest. Picturing the child's condition at the end of such a paroxysm, we are to conceive the contracted and almost emptied lungs with a diaphragm relaxed to its utmost extent, and whose proper function is for the time suspended. We are to conceive this in a subject whose ribs aid little or nothing in the work of respiration, whose inspiratory power is at the best but feeble, while its nervous irritability is extreme. What happens next? By a sudden involuntary inspiration the air is drawn "with much force and velocity" through the half-closed chink of the glottis. The breath that is wanted comes with spasmodic force, but there is opposed to it this other spasm on the part of the larynx, so that, after all, the air is admitted but sparingly. Observe that this is not a deep inspiration merely, like the soft prolonged sigh of one who needs an extra supply of air—nay, it is not a deep inspiration at all: it is a shallow one. The blind violence of the inspiratory effort is rendered abortive by means of the laryngeal spasm. The air that enters, as auscultation witnesses, does not penetrate far.

How can we so well account for a spasm like this, or interpret the perverted mechanism of respiration, as by

* The lung-collapse found in children dying directly of whooping-cough was fully described by Sir James Alderson in the *Medico-Chirurgical Transactions* as long ago as 1830.

watching still further the action of the diaphragm. With the extreme relaxation of this muscle, and the temporary abeyance of its function, I conceive it probable that the very first in the train of events which finds expression in the whoop is a spasmodic contraction and descent of the diaphragm. Without appealing, for the present, to the medulla oblongata or any reflex mode of stimulation, it seems reasonable to suppose that, in the circumstances of the young child, a sudden suspension of the rhythmical action of its great breathing muscle, and not suspension merely, but such active interference with its function as is implied by its being, so to speak, sucked up into the chest, would suffice of itself (sooner or later, according to the nervous stability of the child) to give rise to spasmodic contraction. In other words, so soon as the diaphragm, from the abnormal condition of relaxation in which it finds itself at the end of the convulsive cough, first resumes or attempts to resume, its orderly method of work, I should expect that its first contractile effort should be of the nature of spasm; that the sudden descent should, as in an instant, make room for the full expansion of the pumped-out lung, and that the violence of this revolution should be met by a conservative spasm on the part of the glottis—a spasm which, in fact, controls and regulates that of the diaphragm.

Whether such an hypothesis is to be accepted or not must depend, of course, upon its harmony with other observed phenomena of disturbed respiration under like circumstances. Now there is nothing precisely *like* whooping-cough, but there are diseased states intimately allied with it. There is spasmodic asthma, for instance, implicating the same organs, due to the same or a similar nervous irritability, and often, in later life, taking the place of whooping-cough. The relation of these two—of the asthmatic fit and the whooping-cough fit—is seen chiefly by contrast. Asthma fit is a condition of extreme inspiration, whooping-cough fit of extreme expiration. The one has not the breath to cough or blow out a candle, the other is a succession of coughs. The asthma fit yields with a sudden expiratory jerk quite peculiar to the disease; the whooping-cough fit yields with a sudden inspiratory spasm which is equally peculiar. I am speaking now of the mechanism of these two paroxysms. They have, indeed, as we shall see presently, a deeper connexion, witnessed to in many ways, as in the frequent origin of the one disease out of the other, and the fact that similar causes will excite and similar expedients will cure both. But for mere mechanism we may appeal, not only to pure asthma, but also to general emphysema. How striking is the almost invariable intrusion of genuine asthmatic spasm into the history of vesicular emphysema. Whence comes it that the "asthmatic element" so uniformly becomes superadded to chronic bronchitis so soon as the lungs have undergone emphysematous change? Why should this condition entail, not dyspnœa merely, but jerking respiration and asthmatic fits? May it not be that the common features in these three affections—asthma, emphysema, whooping-cough—are due to a common factor: to a perverted or impaired action, that is, on the part of the diaphragm, purely reflex in the case of unmixed asthma, mainly mechanical in the case of emphysema and whooping-cough; in the one due to the interference of voluminous inelastic lung, in the other to lung collapse and respiratory stasis?

You will say, perhaps, that however the action of the diaphragm may account for the whoop of whooping-cough, this point is really of secondary importance, since it is not the whoop, but the paroxysmal cough, which betrays the disease. Children may whoop or not, according to the violence and duration of their cough.* The whoop is an accident to be heard on and off. What we seek is the origin of the paroxysmal cough, and the reason why, so soon as a child gets it (or, according to some, for an indefinite period before and after), it becomes a source of infection.

Now I pass over for the moment the undoubted fact that, according to tradition and popular as well as medical belief, the whoop itself is very intimately connected with the contagion of the disease, and that no doctor or mother will say for certain that a child has whooping-cough unless and until it both coughs and whoops, and I would inquire what can be made out in respect of the origin and endowments of this affection upon the credit of its nervous relations. Supposing this a nervous disease, what is there about the diseases of that class—all of them sufficiently mysterious—of which we may legitimately avail ourselves to explain, or rather to gather together, and formulate the apparent anomalies of whooping-cough?

It is a nervous disease. Witness to that the recurring nocturnal dyspnœa which often ushers in the affection and is lost in it; the strictly periodic character, in many instances, of its paroxysms; the influence of habit; the control exercised by the mind, so that by admonition, and still more by threats, the coughing fits can be held in some check. There is besides the remarkable fact—true only of nervous diseases—that whooping-cough, like asthma, and less notably like chorea, is sometimes suddenly arrested by change of place. Moreover, whooping-cough gives origin to other diseases unquestionably nervous; it gives origin especially to the purest spasmodic asthma where there is neither emphysema nor any other organic lesion to explain the sequence. We may be content indeed, and in accord with general opinion, in saying that the earliest *motive* of whooping-cough, as of asthma, is to be found in a "morbid exaltation of sensibility." With the instability of the nervous system in early childhood coughing paroxysm (like asthmatic paroxysm) is immediately excited by *some irritation or other* of the pulmonary mucous membrane. Thus guarded and generalised the definition of whooping-cough is pretty generally admitted.

But in all this we do but increase our difficulties. We have to regard the disease in its entirety. Mechanical explanations are too narrow to embrace it all. By as much as we make it probable that whooping-cough is apt to be excited by external stimulation, and when excited to exhibit the particular phenomena which we see owing to the pattern of the childish framework, by just so much do we exclude and render unaccountable those other features of the disease which seem to link it with contagious fevers.

There is no character of whooping-cough more fully recognised in the present day (it was not always so) than its property of spreading. There can be little doubt, indeed, that this feature of the complaint is, from the nature of the case, almost certain to be overestimated. Any affection which is both common and prone to affect large numbers at a particular time and place, will be sure to obtain a reputation for infection greater than it deserves. The spontaneous origin of the disease, however probable in itself, will never be allowed in the presence of a possible source of infection. There is no affection requiring such caution in this respect as whooping-cough, for there is none so common, or so often seen in an epidemic form. So prevalent is it that there are those who believe that it is the common lot of humanity—that in some shape or other no child born of woman can escape it. Certainly our hospital figures will understate the actual liability, since they include a large number of neglected children of whom nothing is known. Now, taking 523 children of the poor admitted into the Hospital for Sick Children, just as they come, I find that out of 246 boys, 105 were known to have had whooping-cough; while of the 277 girls, 132 were known to have had it. If, then, we admit, as we must, that a larger proportion of these have had the disease than the record shows, it will probably be no overstatement if we say that half of all children born suffer from whooping-cough. Of what other affection can this be said?

But this is not all. Whooping-cough arises out of catarrh. A child with catarrh is so far more prone to the disease than another child. The chances, then, being pretty even for all children whatever of getting whooping-cough or escaping it, the probability in the case of the catarrhal child will be in favour of its developing the disease. And, indeed, if we hold with some authorities, that the whoop is no necessary part of the disease, but only a sign and measure of its spasmodic severity, it would be impossible, on the evidence of figures, to deny that whooping-cough was the universal inheritance. The statement could not be positively affirmed, but if a revelation of that

* It is not to be supposed, nor would my theory imply, that the violence of the whoop and of laryngeal spasm is in proportion to the length of the cough paroxysm. It would be so other things being equal; but other things are not equal. Especially does the nervous stability vary between one child and another. In one catarrh will be the chief feature, the whoop only occurring occasionally when cough is unusually prolonged. In another and probably younger child, with little or no catarrh, the liability to spasm will be extreme, so that a very slight disturbance of the diaphragmatic rhythm will suffice to arouse it.

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mind were made to us, there is nothing in our statistics to make it antecedently improbable.

It follows that, however infectious or contagious whooping-cough may actually be, it is certain to appear to be more of both than it really is. No particular instance of the disease will be accepted as spontaneous when by the most diligent search some other instances can be discovered in any sort of connexion with it. From the sociable habits of children and the extreme commonness of whooping-cough amongst them, such instances will seldom be wanting. If none should immediately occur in the associations of the time, we do not hesitate to interrogate the past and even the future. Two illustrations are before me just now. In the first, two children living apart, but in a district of London where whooping-cough was very prevalent, spent an afternoon together; neither was suspected of whooping-cough, but one had cough. They parted, and some time later this latter developed whooping-cough. After a while (I have not the exact dates) the other had whooping-cough also. There is no doubt whatever in the mind of her mother that she took it of her companion. In the second instance two other children were in close company on a certain day. Neither had whooping-cough, but the one had had it in a different part of the country ten months before. She had not whooped for eight months, but in that interval (five months before the meeting) had suffered from bronchitis. Ten days after the visit the second child began to cough, and within a fortnight to whoop. There is no doubt whatever in the mind of the parent of this child (who in this instance is a well-known physician) that this, too, was an example of contagion. I am not saying that he is wrong—I only say that if the influence of contagion is made to reach back and to stretch forwards without limit, we may get at it, with due industry, in every instance.

We are not, therefore, to deny that whooping-cough is contagious. That is supported by an independent set of facts; we are justified in denying some of the modes in which it is said to be conveyed, supposing these to be in themselves improbable. From the nature of the case, statements in support of every conceivable method of conveyance must be most easily adduced. The mothers of England, with whom sometimes a certain amount of evidence is equivalent to demonstration, could bring narratives to show that whooping-cough contagion is carried about through time and space with no assignable limit. There is no need to be disturbed by such narrations.

Accepting, then, the fact that whooping-cough is contagious, both the circumstances of the disease and, still more, its own individual character make it difficult to determine either the mode or the extent of its contagiousness. That it should spread by any method at all analogous to that of scarlatina or measles seems quite incredible. Whooping-cough, if we will but look to the nursery and not to the books, has no uniform course and no necessary pyrexia. It lingers on indefinitely, and may have distinct intermissions. In many instances there is no disturbance of health whatever, only this strange convulsion aroused it may be by some obvious external cause. The doctrine of a specific poison, residing no one knows where, and communicated no one knows how, is not only a pure assumption, but it imports difficulties of its own. How, for instance, upon that hypothesis, are we to account for the fact that a child with catarrh becomes *thereby* liable to whooping-cough. You never get the one prevalent but the other is prevalent also. Dr. Edward Smith has conclusively shown that the two affections rise and fall together.* Whooping-cough is in harmony with catarrh, and out of harmony with zymotic diseases. Is its poison, then, gendered somehow out of catarrh?

You will remind me, no doubt, that in certain epidemics of measles whooping-cough prevails along with it. I conceive that it does so because measles involves catarrh. In any case the difficulty is not lessened by supposing that the *materies morbi* of whooping-cough is, in some unknown manner, attracted by the poison of measles. If whooping-cough is the solitary illustration of such a principle it is unfortunate that its claims to specific character should, on other grounds, be so equivocal. It is as little conceivable that the reception of the poison of measles should confer a liability to receive the poison of whooping-cough as that whooping-cough itself, if due to a *materies morbi*, should suddenly depart under the influence of change of air.

(*To be concluded.*)

* See Medical and Chirurgical Transactions, vol. 37. "The great similarity," says Dr. Smith, "between whooping-cough and chest diseases, contrasted with the dissimilarity between the former and zymotic affections, cannot fail to induce us to regard them as most closely allied, and may almost suffice to induce us to inquire if they are not in their morality the same disease."

ON GELSEMINUM SEMPERVIRENS.

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(*Continued from p. 661.*)

ACTION ON MAN.

In order to test the effects of gelseminum on man, we have given it on seventeen occasions to six persons, in doses sufficient to produce decided toxic effects. The tincture we used was made with one part of root to four of rectified spirit. To excite the symptoms characteristic of this drug, we found it generally necessary to give drachm doses hourly for three hours—a quantity which may be given with perfect safety. Some individuals, however, as might be expected, are much more prone to be affected than others. Thus, in one case, two doses of twenty minims at two hours' interval produced well-marked symptoms which lasted all day; and, generally, twenty-minim doses repeated every three hours will, in the course of twenty-four, or at all events in double that time, produce the earlier symptoms presently to be described. On the other hand, we have given drachm doses hourly for six hours with very slight effect; and on one occasion to a delicate young woman we gave twenty minims every three hours for several days, finally producing only slight heaviness in the eyelids.

The symptoms excited by the gelseminum were similar to those described in our first communication, but we think that our recent joint observations are more exact than any previously recorded, and that we have obtained fresh and further information concerning the effects of this interesting drug.

Unless given in dangerous doses, gelseminum affects first and chiefly the eyes and brows. The symptoms generally occur in a certain order; not without exceptions, however, both in the order and number of the symptoms. The drug first produces pain in the brows, followed soon by giddiness, then by pain in the eyeballs, and soon after by dimness of sight. A larger dose produces double vision without apparent squinting, with a sensation of great heaviness in or under the upper eyelids, with somewhat contracted pupils. A still larger dose causes drooping of the upper lid, sometimes so marked that the edges become nearly closed, and can be opened only by a strong and painful effort; and after straining to open them, sometimes the upper eyelid is so tired that ptosis for a short time becomes complete. The movements of the eyeball are restricted, and in one case were associated with a strong double internal squint. The patient next complains of weakness of the legs, and we have never pushed the drug beyond the production of this symptom. When decidedly under the drug's influence the patient is pale, with a heavy sleepy look. Some say that their eyes feel sleepy; others yawn frequently, and say they can hardly keep awake, and when left to themselves fall asleep. Patients complain also of dryness of the mouth, though the tongue looks moist, and to the finger feels so. Some keep moistening the mouth with a little water, hours even after the discontinuance of the medicine.

Except the internal squinting, these symptoms were all produced in the greatest number of cases; but in some instances even large doses of the tincture induced only a few of the slighter symptoms. Thus a woman took a drachm dose hourly for six hours without exciting headache, diplopia, or giddiness—only great heaviness of the eyes and dimness, almost amounting to temporary loss of sight; though on a former occasion we produced, in this very woman, extreme diplopia with giddiness with four one-drachm doses of the tincture. Diplopia is, as we have shown, generally preceded by headache, giddiness, and

dimness of sight; but in one instance diplopia occurred without these preliminary symptoms, though, strange to say, on a subsequent occasion, in this same woman, with a larger quantity—that is, six one-drachm doses given hourly—we produced much giddiness and mistiness without diplopia.

The symptoms from gelseminum come on early and soon subside. A single drachm dose rarely produces any marked symptom, but in from ten minutes to a quarter of an hour after the second hourly dose the symptoms appear, and reach their highest point in about half an hour, then quickly subside, most of them ceasing in about an hour. With the repetition of four or six hourly drachm doses the symptoms may persist six or eight hours after the last dose; but the symptoms are most marked half an hour after each dose, and then decline.

We shall now describe each of the symptoms separately and fully.

Pain in the head and eyes.—Patients described this pain variously. It was generally limited to the forehead, and most marked just over the eyes. Some called it a dull sensation over the eyes; others, a heavy pain; others, a giddy pain; and one patient experienced pain over the occiput, with a sensation as though the crown of the head were being lifted off in two pieces. This headache was sometimes absent, and sometimes followed instead of preceding the other symptoms. Dull aching pain in the eyeballs, now and then shooting in character, occasionally worse in one ball, sometimes followed and sometimes preceded the headache. The headache and pain in the eyeballs, intensified on moving the eyes, were often severe. When ptosis was well marked the effort to open the eyes widely caused considerable pain, and the patient seemed to get relief by closing them.

Giddiness was another prominent and early symptom. Some felt it over the whole head, but by far the larger number said it was limited to the brows. Standing or walking made it much worse. When well marked the patients staggered, and were afraid even to stand, much less to walk. So giddy was one patient that he nearly fell off the form. Some described their heads as going round and round. They felt and seemed drunk, though without any incoherence, still less mental excitement.

Sight.—In every case the sight was affected; indeed, dimness of sight and giddiness appear to be the most constant symptoms, and may exist without headache, pain in the eyeballs, or double vision. At first the sight, without being misty, is not so clear as usual; then slight mist comes before the eyes, one patient comparing it to a "lot of smoke rising before his eyes," and another to a "thick veil." The sight at last becomes so affected that it fails almost completely, failing first with distant objects, then, as the sight becomes more impaired, nearer and nearer objects appear hazy. Gelseminum affects, too, the sight in animals. Thus we poisoned a dog, and, after slight muscular weakness was produced, the sight became evidently almost lost, for the animal ran straight against objects without trying to avoid them, evidently not seeing them.

Diplopia.—The drug seems to produce two kinds of diplopia, one much more persistent than the other. As to the transient kind, we find it on many occasions a very passing phenomenon, lasting only a few seconds, then disappearing, then, after a few minutes, reappearing. In this form images in the median vertical line appeared double, distant objects at first undergoing the duplication. Sometimes the patient was conscious that the diplopia was coming on: thus one woman said, "I know it is now coming on; I feel such a heavy weight under my upper eyelid." The double vision then came on, and, with the heaviness, ceased in a few seconds. One image was higher than the other; in this respect the images varied much. The following descriptive notes were taken down rapidly by Mr. T. Fox from the patient, the phenomena occurring as fast as they could be written: "One gas jet appears about six inches above the other, and there is six inches between them horizontally; the upper one is to the left; now the right is uppermost; now the left slightly again; going over to right now again; exactly over one another now, and quite close together; now again separated, left the highest; now over one another." With other patients the two images seem on a level. Sometimes the drug produces only this transient kind of diplopia; at other times both kinds; and sometimes one kind preceded the other, the transient usually preceding the more constant form, and continuing to recur from time to time, while the constant form lasted.

The phenomena of the constant form of diplopia follow a definite order, and take place in the upper half only of the field of vision. They occurred first with objects held at the extreme right or left of the visual field; and as the patient passed more under the influence of the drug, then with objects held nearer and nearer the middle line; and at last, usually for a short time only, objects in the median vertical plane seemed double. As the effect of the drug wore off, the double vision disappeared in the inverse order. The outer lateral image was the higher, and the further the object was carried to the right or left the greater was the horizontal and vertical distance between the images. When a coloured glass was placed before either eye the outer and higher image was seen by the covered eye. When the object, usually a thermometer case or lighted candle, was carried high above the head, the two images gradually coalesced, and the object looked very much thinner, "like a thread." With well-developed diplopia there is impaired movement of the eyeball, chiefly affecting, as far as we could ascertain, the external and internal rectus, especially the external, for the outward and inward movement of the eyeball was less free than before the action of the medicine. The ball appears to be moved by a greater effort, so that when carried as far as the weakened muscles are capable, the ball oscillates; as though the patient with a great effort moved it as far as he could, and then the tired muscles gave way a little, but being roused to an effort they carried the eye back again; the frequent repetition of this effort giving rise to an oscillation.

The external rectus is generally first affected, and not infrequently one external rectus sooner and in excess of the other. Even when the diplopia is strongly marked, the loss of power over the muscles is not very great, and there is no obvious squinting. (We may remark here that we could not detect any squinting during the transient form of diplopia.) Then, as the patient becomes still more affected, ptosis supervenes, and a great part or the whole of the upper half of the field of vision is cut off. The loss of power in the eye muscles is then more marked, but without the occurrence of obvious squinting. At this time the symptoms no longer follow the order previously described, but assume various phases, often changing rapidly. Thus, whilst on one side the outer image is the higher, if the object is carried to the other side of the field the inner image becomes the higher; or, perhaps, for the first few seconds the outer and then the inner is the higher.

We now give a series of diagrams showing the various changes of the images.

Coloured glass over right eye.

Patient's left.

A few minutes later the images assumed the form seen in this diagram—

Coloured glass over right eye.

Patient's left.

Fifty minutes later—

Coloured glass over left eye.

Patient's left.

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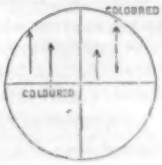
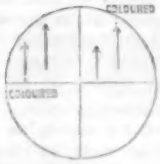
A few minutes later—



Coloured glass over left eye.

Patient's left.

An hour after this—

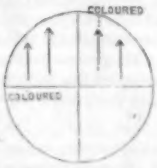


Coloured glass over left eye.

Patient's left.

Just before the images assumed this form the right outer image was the higher, but in a few seconds this position was reversed—a rapid change in the relative height of the right image which happened on several occasions.

Four hours later, and six and a half hours after the last of six single-drachm doses, given hourly, when the symptoms were declining, the images assumed the subjoined form—



Coloured glass over left eye.

Patient's left.

We have not ventured to test the images under toxic symptoms so marked as to weaken the legs; but apparently, after a time, objects in the lower half of the field of vision seem double; at least, two patients told us that the things on the tea-table appeared double. In almost every case the two images were parallel; that is to say, they did not converge towards or diverge from each other, with the single exception of a patient who, during one of the series of observations made on him, said that the images converged at the top. The images were often unsteady, and seemed to dance.

We have submitted the foregoing notes concerning the action of gelseminum on the eyes to Mr. John Tweedy, who has kindly consented to give an explanation of the phenomena.

(To be continued.)

VAGINAL URETHROCELE.

BY M. GILLETTE,

CHIRURGIEN DES HÔPITAUX DE PARIS, ANCIEN PROSECTEUR A LA FACULTÉ DE MEDECINE.

IN the number of THE LANCET for the 30th October, 1875, Mr. Lawson Tait published, under the head of "Saccular Dilatation of the Urethra; removal; cure," a very interesting observation beginning with "Mrs. B——, mother of a large family, had suffered for many years from a protrusion about the size of an egg from the vulva, which," &c. In concluding, Mr. Tait remarked that no parallel case had been recorded. Permit me to observe that I read to the Société de Chirurgie of Paris in February, 1873, a very similar case, which was published in the *Union Médicale* in the same year, under the term of "urethrocele vaginale," and upon which I operated with success by a different method from that employed by Mr. Tait. I should feel obliged by the publication of the accompanying case, which may prove of interest to readers of THE LANCET.*

* M. Gillette adds:—"Si je ne l'ai pas traduite en votre langue c'est que j'ai craint, comme nous disons nous autres Français de ne pas le faire en assez bon Anglais." M. Gillette need not, we are sure, have feared criticism on this point, but we have translated his case for him.—ED. L.

Partial dilatation of the canal of the urethra in woman appears to me to be an affection which is far from being familiarly known to practitioners. As the classic authors do not make any reference to it, I have thought some interest might be felt in the records of a case of this kind which has recently fallen under my notice, and on which I have had to operate. The description of a disease can only be derived from a series of facts published and collected together. I believe also that great advantage is always gained by drawing the attention of surgeons to isolated cases which may subsequently contribute to elucidate the nature of an affection, the history of which has not as yet been even commenced by modern authors.

Madame D——, aged 31, living in the country, near Montereau, was recommended by one of my friends to consult me in the early part of February, 1873. She presented all the appearances of a healthy constitution. She was married, perfectly regular, and had had three children without any accident. About a year previous to seeing me, and two months after the last confinement, which had been followed by a rather free catarrhal discharge, she noticed some uneasiness in passing water, and a slight sensation of weight in the region of the vulva. At first she paid no attention to it, but as the latter sensation increased in intensity, and the burning caused by the passage of water became more and more painful, she at length consulted a physician, who limited his treatment to the administration of diuretics and to injections of lead lotion and spirit. Nevertheless, a new symptom arose to disturb the patient. After each act of micturition, especially if she were compelled to remain in the erect position or to walk for a considerable distance, she felt herself wetted by a sudden discharge of urine almost without her consciousness and in spite of her efforts to prevent it. A curious point was, however, that this involuntary micturition was not accompanied by the burning pain which attended the voluntary discharge. Being much tormented with her condition, she consulted a second physician, who treated her for an incontinence of urine. No improvement took place, however, and, though naturally buoyant in spirits, she became so demoralised that she almost entirely lost her appetite both for food and drink. Always in fear that she would wet herself, she deprived herself of all liquids. The urine escaped even during sexual intercourse.

On examination, I found that the finger introduced into the vagina felt immediately on the upper wall of this passage an ovoid swelling (*bosselure*), which yielded to very slight pressure, the urine at once being discharged. Continuing the vaginal exploration, the internal generative organs were found to be perfectly healthy.

And now, suspecting that I had to deal with a case of *partial dilatation of the urethra*, I next day made another examination of the vagina with the aid of a bivalve speculum. I then found behind the urinary meatus a tumour projecting into the vagina, and formed almost entirely by the anterior column of this canal. This tumour presented on the surface some of the transverse folds of this column, was of an ovoid form—that is to say, with a longer antero-posterior diameter of four and a half centimetres, and a transverse diameter of three centimetres (one and a half by one inch). It was more prominent below and in front, and was a little prolonged posteriorly. Its colour resembled that of the vaginal mucous membrane, and on being lifted with the finger seemed, so to speak, to be reduced, whilst the urine escaped by the meatus. Having allowed the patient to repose for a few moments, I passed the catheter, which confirmed me in the view that the patient was not suffering from a cystocele, but from an urethral dilatation. A female sound introduced gently into the meatus was arrested in a cavity, and I could readily distinguish the point of the instrument in it through the walls of the vagina. On pressing it onwards it entered the bladder, which presented no displacement. The diagnosis was then confirmed that the case was one of vaginal urethrocele. Having at this time no intention of undertaking a surgical operation, I must admit I found myself rather embarrassed as to the measures I should propose to be adopted, but I recommended her to wear a pessary, and especially the caoutchouc pessary, which entirely filled the vagina; but she was disinclined to use it, and preferred to submit to some operation, however hazardous this might be.

In his "Médecine Opératoire" (tom. iv., p. 726), Velpeau, speaking of the abnormal dilatation of the urethra, remarks that in a patient affected with incontinence of urine, and in whom the urethra presented a considerable dilatation, M. Hobart had, in a communication made to the *Revue Médicale* (tom. iv., p. 285, 1830), proposed to excise a part of the inferior wall, and bring the edges of the wound together by suture, by which means the vesico-urethral functions might be restored. The same author mentions also the case of a woman whose urethra was so much enlarged that she was no longer capable of retaining the urine, and in whom Gensoul restored the canal to its usual dimensions by excising a flap from its inferior wall and bringing the edges together by the twisted suture. Lastly, in one of the *Séances de Chirurgie* (April, 1857), M. Demarquay exhibited the urinary organs of a young man, aged twenty-two, on whom he had operated for a large ampullary dilatation of the urethra. All the above examples refer more or less to general dilatation of the canal, whilst my patient suffered only from partial dilatation. I therefore discarded the idea of interfering in any way by operation with the wall of the urethra itself. I was not then acquainted with the observations of Foucher, published in 1857, on "Partial Dilatation" (*Moniteur des Hôpitaux*, p. 753), but resting on the sanguinary operation of Jobert for cystocele, I resolved to remove a portion of the anterior wall of the vagina, and to unite the edges of the wound. The most convenient position of the patient was undoubtedly that for vesico-vaginal fistula—viz., on the elbows and knees; but it seemed to be uncertain whether the tumour would empty itself completely, and it was always repugnant to the feelings of the patient. I therefore proceeded as follows:—

The patient being placed on her back, the lateral walls of the vagina were separated by the valves of the speculum; a double incision was then made, implicating only the anterior wall of the vagina and avoiding the urethra. These two oblique incisions approximated behind and diverged in front, and included a triangular flap of mucous membrane, the anterior base of which was seated on the most projecting part of the tumour, and was one and a half centimetres in length. The dissection of this flap (which was somewhat difficult since the urethra had to be respected) was made from the base to the summit, and this portion of the mucous membrane being excised, the two lips of the wound were brought together by the continuous suture, which was not very easily accomplished. The subsequent proceedings were simple. An S-shaped sound was kept in the bladder for a fortnight, as after the operation for vesico-vaginal fistula. At the expiration of five days the anterior suture was removed, and the others consecutively. The patient was directed to make no effort, but to use an injection daily.

At the expiration of a fortnight Madame D'—— rose from her bed with no further inconvenience from the bladder. The tumour which had so long troubled her did not reappear upon her assuming the erect posture. After two months the patient assured me that there had been no relapse, and that she considered herself permanently cured. It is uncertain of course whether this case will be permanently cured, or whether from unforeseen circumstances it may not return. No answer can be given until after the lapse of at least a year or two. At the same time there can be no doubt that this patient has been relieved of a very distressing malady.

A few days ago M. le Dr. Troncin, a former pupil of Jarjavay, told me he had observed at Beaujon in 1867 a case of vaginal urethrocele, which had not been operated on, in a woman of thirty years of age. The finger placed upon the tumour here also distinctly perceived the beak of a male catheter introduced into the cavity, and pressure on its surface caused a flow of urine.

BEQUESTS TO MEDICAL CHARITIES.—The General Hospital, Birmingham, has received £2203 under the will of Miss Ann Rushton, £100 under that of Mr. Wm. James, and £100 under that of Mr. Alderman Phillips.—The Queen's Hospital, Birmingham, has received £2086 under the will of Miss Ann Rushton, £100 under each of the wills of Mr. Edwin Laundy, Mr. William James, and Mr. Alderman Phillips, and become entitled to £400 under that of Mr. John Inston.

THE COCA LEAF.

OBSERVATIONS ON THE PROPERTIES AND ACTION OF THE LEAF OF THE COCA PLANT (ERYTHLOXYLON COCA), MADE IN THE PHYSIOLOGICAL LABORATORY OF UNIVERSITY COLLEGE.

BY G. F. DOWDESWELL, B.A.

(*Continued from p. 633.*)

DR. MANTEGAZZA'S article on this subject* is very remarkable in every respect. He is known as the author of some papers on physiological subjects,† chiefly on the blood and spermatozoa, published in different journals, and has invented an ingenious instrument for the estimation of the number of the blood-corpuscles. The year previous to the publication of his article on the Coca he had brought out a medical work on South America,‡ in which country he appears to have resided and practised for some years, and to have been conversant with the use of this drug in every form, both as commonly chewed by the natives of the country and as employed therapeutically, prescribing it constantly himself and recording eighteen cases of varied character, mostly from his own practice in that country, in which he states that it was employed with success; and subsequently using it in Europe. He characterises its action in both countries as identically similar. He gives a full account of the plant, with drawings, the sketch of the leaf, though slight, representing the "lines" and their relation to the veins somewhat more accurately than that in the *Botanical Magazine*. He also gives a copious reference to the bibliography of the subject (pp. 466-468). Some of the works mentioned by him are omitted from those before-named, as in them the mention of this plant is only slight and incidental, and others are not readily accessible in this country.

His account of its properties is most eulogistic, and is pretty well known. He summarises its action as follows—viz., it stimulates the stomach and assists digestion; in large doses it may produce fever and slight constipation, while in medium doses, which he states at one to four drachms, it stimulates the nervous system, increasing muscular power, rendering it independent of external influences, and inducing a happy state of tranquillity, which it confers without any impairment of strength; and in larger doses it produces hallucinations and delirium. He recommends it in warm infusion after dinner for a weak digestion or the effects of intemperance, and as a remedy for a hot mouth and furred tongue in the morning. He states that he used it himself for two years without any injurious effects, and though usually unable to do any mental work after dinner without experiencing headache and indigestion, yet by its use in warm infusion after dinner he was able to work without any inconvenience in either respect. He recommends it for acidity and for flatulence, states that its use renders the teeth white, and that he had always remarked this effect amongst the miners; all other travellers, however, in the country, excepting G. de la Vega, assert that it renders them black and carious. He adds that it sometimes increases the secretion of urine.

He carefully noted the effect of warm infusions upon the pulse in himself, comparing it, in a table which he gives, with that of warm water, green tea, coffee, cocoa, and maté. He maintains that while warm water increases its frequency in the first five minutes, on an average, 6·8 pulsations, coca increases it 8·0, while its action is much more sustained; water at the end of an hour reducing its frequency, and coffee only increasing it by 1·8. In large doses he experienced an increase of temperature and of the frequency of respiration, with a transitory feverishness; on

* Reported in Annali Univ. di Med. for 1859, vol. clxvii., p. 450, &c.

† These are: On the Measurement of Blood-corpuscles, in the Gazetta Med. Ital. for 1865. On Coagulation of the Blood: Ann. di Chim., July, 1869. On the Vitality of the Spermatozoa of the Frog: Compt. Rend., Aug., 1860, p. 254.

‡ Sulle America Meridionale, Lettere Medic., del Dottore Paolo Mantegazza: Milan, 1858.

two occasions he noted the temperature under the tongue to be 38·75° C. It flushed the face and made the eyes glisten. In still larger doses it produced palpitation of the heart, nervous derangement, and cold extremities. A maximum dose (eighteen drachms) increased the frequency of the pulse from 65, its normal rate, to 134. He describes its subjective effects in glowing terms, and recommends it as a remedy for alcoholic intoxication. After the complete delirium produced by eighteen drachms, which he describes as the most pleasant possible, three hours' calm sleep perfectly restored him, and he found himself capable of mental application with increased vigour. Under its influence he remained for forty hours without requiring food or experiencing any inconvenience or weakness. In short, he recommends it as an antispasmodic; for colic, flatulence, diarrhœa, and impaired digestion; in dyspeptic and all spasmodic affections; as a tonic in debility and nervous prostration; in hysteria and melancholia; but pronounces it dangerous in congestion. He prefers it to opium in mental affections. He is anxious to try its effects in hydrophobia and tetanus; considers that in sustaining nervous force it is superior to all other known agents; and recommends it as a safe aphrodisiac, and in cases of seminal debility. He cites eighteen varied cases, mostly from his own practice, in support of these opinions; and concludes by declaring that its physiological and therapeutical action is the same in Europe as in America.

Its properties have been mentioned by other writers, too, though how far from original observation is doubtful. It has been advocated by one or another in the utmost variety of cases, and were one-tenth part of what has been stated of its effects correct, it would be a panacea for all human ailments—the veritable Elixir of Life. Its introduction into the armies and navies of Europe has been advocated two centuries ago by Dr. H. Unanuie, and Don Ulloa of Madrid, as has its use on board emigrant ships.

The only other systematic observations published on its action of any moment, as far as is known to the writer, is an account of some experiments by Dr. Alexander Bennett, published in the *Edinburgh Medical Journal* for 1873, vol. xix., made chiefly upon frogs; but in them the alkaloid alone was employed, which cannot be regarded as containing all the active properties of the leaf, for besides this there is a volatile odoriferous substance which possesses the peculiar aroma characteristic of fresh leaves, and to the presence of which all accounts, without exception, concur in ascribing the efficacy of the drug, as do they also in stating that an infusion of the leaves has a very different action from when they are chewed. The analysis was first made and the crystallised alkaloid obtained by Niemann.* Its other constituents are (Niemann) a waxy body, coca-wax, which appears to contain the colouring matter, and has a strong sub-bitter flavour, leaving a numbing sensation on the tongue. There is also a peculiar tannic acid, "coca-tannic acid," to combine with which, and set free the other principles, is no doubt the effect of the lime which is chewed with the leaf. Its analysis cannot be considered as complete, and some writers doubt whether it may not contain a second alkaloid, which has not yet been obtained (see *Chemical News, loc. cit.*); but this is improbable. Its farther investigation is most desirable.

In the present observations it has been employed by chewing the leaf with lime, and in extract prepared by macerating the leaves with milk of lime, and exhausting the residue with alcohol; also in warm infusion, as recommended by Mantegazza.

EXPERIMENTAL OBSERVATIONS.

It was purposed, in the first place, to observe the effect of the drug on the pulse, on the temperature of the body, and particularly on the secretion of urea, which it had been asserted to diminish; these objective facts being regarded as far more reliable and conclusive in every way than statements as to mere subjective effects, which are always open to the objection that they exist only in imagination, and can neither be demonstrated nor disproved. Moreover, the assertion of its observed effects are so positive that no doubt was felt as to obtaining decisive results. A series of preliminary observations was therefore made to ascertain the normal state of the system, in the writer's own person, in the above-named particulars. The temperature was observed by placing under the tongue, for three minutes or upwards, one of Casella's clinical thermometers. The pulse was taken always in the same position.* Tracings of the arterial pressure were frequently obtained by a Marey's sphygmograph, of Mahomed's construction—an excellent instrument, kindly lent by Dr. Ringer for the purpose. The amount of exercise taken was recorded, as nearly as possible, daily. The amount of food ingested during the period, solid and liquid, was very similar in all respects. The whole of the urine passed during the twenty-four hours was collected from 9 A.M. till 9 A.M. the following day, the whole being mixed together, and examined an hour or two afterwards. It was tested for albumen, and for sugar by Fehling's process, and the urea was estimated by the simple and convenient method of Dr. Russell.† The reaction of the urine was acid throughout both series of observations; its physical characters were tolerably constant, the deposit of amorphous lithates obviously depending upon increased exercise.

A portion of the observations recorded is given in the annexed Table No. I.

The next step was to procure a supply of the drug and obtain preparations of it. Several parcels were procured from different sources; these varied greatly in their characters and quality, the majority having lost their colour and the characteristic aroma of the leaf; consequently they were as inert as so much weather-beaten old hay would be. The experiments with them may therefore be omitted altogether. A parcel, however, was subsequently obtained, which was stated to have reached this country only a few weeks since, the characters of which were markedly different from the previous samples; the bouquet described by Dr. Weddell and other travellers in the country as characteristic of the leaves while fresh, being evident when they were crushed, and the taste when chewed with lime being peculiar and distinctly different from that of previous samples; this odour was aromatic, with a certain resemblance to that of fresh pepper. The flavour of the extract and infusion, too, differed from that of former samples, being agreeable and aromatic, with only a slight bitterness, that of the former parcels being only bitter, disagreeable, and almost identical with that of senna leaves, but milder. The greater portion of the experiments recorded were made with this sample, the leaf of which was small and delicate; but subsequently another parcel was met with of still different characters, and having another and much stronger aroma. The leaf of this was much longer and broader than the others, answering more to the character of E. obtusum before mentioned; the colour too was infinitely better preserved than any of the former, being not only a decided, but in some almost a bright green; they were moreover adherent together in compact masses, as they are said to be packed in the ceatos, and so more likely to preserve their properties, instead of separate and loose as all others had been.‡

In these experiments the leaves were both swallowed in pills with lime, chewed with the same, taken as infusion, and as extract, all which were well prepared by Mr. Gerrard of University College Hospital, who has taken much interest in the subject, and who has also very successfully obtained the alkaloid, and the volatile constituent of the leaf, and is still continuing an investigation of its pharmaceutical properties, for which his skilful preparations of other previously unknown alkaloids, as that of jaborandi,

* Ann. de Thérap., 1862, p. 38, referred to in Watts's Chem. Dict. art. Cocaine. See also Chem. News, vol. iv. for 1861, p. 47.

* In observing the pulse, the beats have always been taken for one minute or upwards, the method of noting them for fifteen or thirty seconds not having been found always reliable. A circumstance which was noticed, too, in an ordinary watch with a common seconds-hand (i.e., not a "centre seconds"), and may vitiate such observation, is, that the seconds' circle was not accurately divided, one-half of the minute being distinctly two seconds different from the other; and this may happen in other cases with common watches.

† Which has been carefully tested in this laboratory with standard solutions of pure urea, and found to give perfectly accurate results, within the capability of the apparatus—i.e., to about 2-100ths (0·02 per cent.) It may be mentioned that it has been found requisite to heat the tube with its contents to strong ebullition, otherwise results somewhat too low are obtained. Merely warming it is not sufficient.

‡ The market price of the drug is about eight shillings a pound; some chemists charge a shilling an ounce, while one advertising agency offers it at even a higher rate than this! A pound yields but a very few grains of the alkaloid. It has been stated to be procurable in Paris, fresher and cheaper than in this country. It may possibly be imported into France direct from Lima, but there is reason to believe that a considerable quantity is re-shipped from this to France, Italy, and other countries.

eminently qualify him. The extract was prepared by different methods, generally by macerating with milk of lime, and exhausting with alcohol, which was then entirely eliminated at a low temperature. The effect of the lime is probably to neutralise the coca-tannic acid, and by this method the volatile principle in which the peculiar aroma consists is preserved; and as all accounts agree in stating that when this aroma is lost, with it is lost its efficacy, it appears that the active principle, in part at least, resides in the volatile constituent. For this reason an extract prepared in the above manner was preferred to the mere alkaloid.

Table I. gives some of the preliminary observations on the normal state of the system and secretion of urea, which obviously varies with the amount of exercise. This was remarked, as also the deposit of amorphous lithates, with a view to a comparison of these particulars under the influence of coca. During Observation 2, in walking twenty-one miles, a slight but decided feeling of fatigue, confined to the muscles of the thigh, was experienced, but not sufficient to affect the pulse or temperature fifteen minutes after coming in. The secretion of urea during the following day was increased 30 per cent.

In Table II., Observation 13, when the same distance,

TABLE I.—*Preliminary Observations of the normal bodily condition with reference to the rate of the Pulse, Temperature, characters of the Urine, and secretion of Urea.*

Obs.	9 A.M.		7 P.M.		URINE.					EXERCISE; REMARKS.	
	Pulse.	Temp.	Pulse.	Temp.	Quant. in 24 hours c.c.	Sp. gr.	Urea. Per cent	Urea. Total in 24 hours gmms.	Physical Characters.		
1	64	—	65	98·4°	842	1020	1·75	14·735	Acid, rather high coloured, clear.	Walked nine miles.	
2	67	98·1°	65 (9.10 P.M.*)	98·0	1048	1030	—	—	Acid, high coloured.	Walked twenty-one miles	Consecutive days.
3	72	98·7	65	98·3	791	1028	2·55	20·170	Acid, high coloured, copious deposit of lithates.	Walked six miles	
4	75	98·7	79	98·7	1210	1016	—	—	Ditto, deposit of lithates.	Walked eight miles.	
5	77	98·7	76	98·	968	1019	1·30	15·73	Ditto.	Walked eight miles; worked gymnastics.	Consecutive days.
6	77	98·7	72	98·5	868	1030	1·735	16·615	Ditto.	Walked ten miles; slight stiffness.	
7	72	98·5	73	98·4	657	1023	2·00	13·14	Ditto.	Walked seven miles; stiffness greater.	
8	72	98·5	69	98·2	1110	1015	1·675	18·59	Acid, high coloured, clear, no deposit.	Walked eight miles; stiffness slight.	
9	69	98·3	—	—	1195	1015	1·450	17·32	Ditto.	Walked four miles; stiffness slight.	
10	72	98·3	76	98·2	1230	1015	1·375	16·91	Ditto.	Walked three miles; stiffness gone.	

* Fifteen minutes after walk and before dinner.

The temperature was taken under the tongue. The urine was tested for albumen and sugar, and found free from both throughout. The respiration was always normal, at about fourteen. The state of the skin was normal. The deposition of amorphous lithates was obviously the effect of increased exercise.

TABLE II.—*Rate of the Pulse, Temperature of Body, Character of the Urine, and Secretion of Urea, under the Influence of Coca.*

Obs.	9 A.M.		7 P.M.		URINE.					Coca taken.		EXERCISE; REMARKS.	
	Pulse.	Temp.	Pulse.	Temp.	Quant. in 24 hrs. c.c.	Sp. gr.	Urea. Percent.	Urea. Total in 24 hrs. gmms.	Physical Characters.	Form.	Equal in grs. of leaf.		
1	76	98·3°	69	99°	1000	1015	1·55	15·50	Acid, high-coloured, clear	Pill.	10	Walked 9 miles.	
2	69	98·1	73	...	1052	1013	1·42	14·580	Do. do. do.	Do.	40	Walked 7 miles.	
3	69	...	64	97·8	1170	1014	1·35	15·795	Do. do. do.	Do. & Tinct.	60	Walked 7 miles.	
4	66	97·3	72	97·9	...	...	...	...	Do. do. do.	Extr.	100	Walked 4 miles.	
5	66	97·8	...	...	750	1034	2·22	16·687	Do. do. do.	Leaf.	120	Walked 10 miles.	
6	...	...	...	...	970	1019	1·750	16·975	Do. do. do.	Extr.	...	Walked 3 miles.	
7	70	98·	60	97·2	666	1028	2·20	14·52	Do. do. do.	Extr. & leaf.	270	Walked 7 miles.	
8	63	97·3	63	...	828	1025	1·90	15·694	Do. do. do.	Inf. & Tinct.	80	Walked 7 miles.	
9	59	...	64	98·3	1100	1018	1·35	14·85	Do. do. slightly turbid.	Inf. & Extr.	...	Walked 9 miles.	
10	73	98·3	58	97·5	980	...	...	...	Do. do.	Extr.	1125	Walked 8 miles.	
11	74	98·1	74 (9.20 P.M.*)	97·7	1030	1018	1·60	16·48	Do. deposit of amorphous lithates.	Extr. Leaf.	300 180	Walked 21 miles.	Consecutive days.
12	66	97			480	1030	3·20	15·36	Do. copious deposit of ditto.	Extr.	600	No exercise.	

* Fifteen minutes after walk, and before dinner.

These observations were made in the same manner as those in Table I. Albumen and sugar were absent throughout. The respiration and skin continued normal. There was no appreciable affection of the pupil, as was expected. The estimation of urea is not complete, but points to no diminution of the secretion under the influence of coca. All the other functions continued unaltered.

NOTE ON TABLES I. AND II.—These experiments were undertaken with the object of carefully comparing the observations made under normal conditions with those to be made under the influence of coca. Various accidents have prevented this being carried out in its entirety; but the effect of coca—if any—is obviously so slight and unimportant that the writer has no present inclination to continue or repeat the experiments.

over nearly the same ground, was walked in almost exactly the same time, about 170 grains of the leaf were well chewed with lime during the walk (20 c.c. of the extract, equal to 300 grains of the leaf, having been previously taken), a slight, though very slight, feeling of fatigue was again felt. It was somewhat less than on the previous occasion; still it existed, and as it was slight on the first occasion, not affecting the pulse nor temperature, it would have required a very trifling action to have removed it entirely, which the brighter atmosphere and somewhat more genial temperature of the second observation might well have done. On neither occasion was there any perspiration to notice. The secretion of urea on this day was only slightly increased; the estimation of it on the corresponding day previously was unfortunately spoiled. The amount on the following day (Observation 12, Table II.) is materially less than on the corresponding day previously (Observation 3, Table I.) An opportunity has not offered for repeating these experiments, which should be done more fully; the estimation of the amount of urea secreted during the twenty-four hours requiring much care and several precautions. In this examination and generally throughout the investigation the writer is much indebted to the kind assistance of Mr. W. Murrell, of University College.

Numerous observations were also made continuously at short intervals for a certain period—generally one hour—

on the effects of particular doses. Those given in the annexed table (III.), may be taken as specimens. In these the drug was taken both in infusion in hot water, drunk warm as by Mantegazza, and as extract; generally and preferably, both as infusion and extract, at nearly the temperature of the body, to avoid the complicating effect of heat. The pulse and temperature under normal conditions having been previously frequently observed at short intervals, were rarely found to remain constant for any length of time, the pulse very commonly varying from one to three beats in the minute, a slight effort, such as a change of position, or particularly the necessity for jerking back the index of the thermometer, deranging it.

It is unnecessary to refer to these observations in detail. In Observation 4, Table III., 40 c.c. of the extract, equal to 10 drachms of the leaf, were taken at 6.40 P.M., which, according to Mantegazzi, is a maximum dose; 35 c.c. (equal to 525 grains) having been previously taken, making altogether 75 c.c. (equal to 1125 grains) during the day. The result is remarkable, the pulse and temperature remaining constant during the observation—a circumstance unusual even under normal conditions; it was soon after a short walk of about three miles, and before dinner. The only apparent effect of the dose in any way was that the pulse seemed somewhat fuller and softer after it, as has been remarked on other occasions; but, although frequent sphygmographic tracings have been taken, it has failed to affect their record. They are therefore omitted.

TABLE III.—*Extract from Continuous Observations of the Effect of Coca on the Pulse and Temperature of Body.*

| Obs. | Coca. Qy. in grs. | Dose, Temp. of F. | Temp. of air F. | | Coca taken before | Coca taken at | Coca taken after | | |

of the wound would be in this line at a point somewhat nearer to the eyebrow than the ear. On removal of the scalp there was evidence of extensive extravasation of blood in the left temporal region. When the superior attachment of the temporal muscle and the temporal fascia and all clot had been carefully removed, a pinhole opening was seen at once just above the temporal ridge of the frontal bone and a little anterior to the coronal suture. Blood oozed through this opening directly it was cleared. There was no blood between the dura mater and the bone, and the opening in the dura mater was readily recognised. The dura mater was carefully removed from the brain, and immediately beneath it (in the arachnoid sac?) in this left temporal region there had been abundant hæmorrhage, so much so that the clot formed was, in its centre (which corresponded with the puncture), about half an inch thick, and its area was somewhat larger than a crown-piece. The vessels of the pia mater were full of blood. No morbid appearances were noticed in the brain-substance itself, and there was no hæmorrhage into the ventricles. The head alone was examined.

Remarks.—It is unfortunate that the clinical symptoms in this case had not been more fully observed; cases in private practice are seldom so well observed and recorded as those occurring in hospital. It seems remarkable that the crochet-hook should have penetrated the skull so readily; it was an ordinary instrument of its kind, and the hole in the skull was about the size that would admit a fine grooved needle. The wound was a direct one—at right angles to the long axis of the body; and evidently the hook must have cut through arterial vessels of considerable size (anterior temporal and anterior meningeal?) both outside and inside the skull. There was no external hæmorrhage; the hole was so small that it probably closed at once, and the blood which was found between the scalp and the bone was thus prevented from escaping. The *amount* of the extravasation was great, but I think it was not in itself so important a factor in determining the speedy fatal termination of the case as the *rapidity* with which the blood must have been poured out. The value of post-mortem examination in such cases as this is evident. From the minuteness of the punctured wound, and also from the small size of the instrument, it would have been thought almost impossible that so much damage could have resulted. If it could have been supposed that there had been so much hæmorrhage it would surely have been a case for the operation of trephining. The symptoms, however, were, so far as they were observed, indefinite; at the same time it was satisfactorily made out that there was no paralysis until about eight hours before death, the time when the child first had difficulty in swallowing; subsequently to this she became rapidly worse.

Leicester.

A Mirror OF HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

FIBROID TUMOUR OF THE UTERUS, CAUSING DIFFICULT LABOUR, AND STILL-BIRTHS AT SEVEN MONTHS, IN FIVE SUCCESSIVE GESTATIONS; INDUCTION OF LABOUR AT THREE MONTHS IN THREE SUBSEQUENT PREGNANCIES.

(Under the care of Dr. HALL DAVIS.)

FOR the notes of the following case we are indebted to Mr. Mason, obstetric assistant.

Emma D——, aged thirty-nine, married, admitted into Prudhoe ward February 18th, 1876, and gave the following history:—She had a fall eight years ago, and injured the lower part of her back, and has been ailing ever since. She has four children living, one of them born four years ago, at seven months. Since the accident she has had five children at seven months, with difficulty, labour coming on spontaneously; none of these survived. Two labours have since been induced at three months. No inconvenience whatever is felt in the absence of pregnancy, and she goes about her work as usual; but when enceinte she has a sense of weight in the sacral region, and a bearing down when she walks. Has no difficulty in defecation and no dysuria. The catamenia have always been regular.

On admission a tumour was felt in the right iliac region, extending into the pubic region, nearly up to the umbilicus, and a little to the left of the linea alba, presenting to the taxis the character of a fibroid tumour, soft and elastic, without fluctuation. No pyrexia. Os uteri livid as in pregnancy, lips full. The uterus was in correct position, except that it was a little lower in the pelvis than normal. Some pain was elicited on pressing upwards against the cervix. She complained of a sense of weight in the sacral region, but no visible effect of the fall eight years ago was noticed externally, nor in the pelvic cavity. There was a bearing down when the patient walked. The tumour, felt abdominally, could not be detected per vaginam. No dysuria nor pain in defecation; bowels very costive. The patient was pregnant three months. The history of her five confinements at seven months, which terminated with difficulty in still-births, had indicated the necessity of inducing labour at three months in the last two pregnancies, and called for the same measure on the present occasion; the os uteri was accordingly dilated with sponge tents on February 19th.

Feb. 20th.—Slight bearing-down pains came on yesterday evening, and have increased in severity to-day. Pulse 100; temperature 98·8°. Bowels constipated. Simple enema.

21st.—Last evening about 10 o'clock the membranes ruptured, and a considerable quantity of liquor amnii escaped. Pains are becoming stronger and more frequent. Os uteri still only large enough to admit a medium-sized sponge tent.

22nd.—10 A.M.: Slept well until 6 o'clock this morning, when pains came on with increased severity, accompanied by constant retching. Pulse 120; temperature 105·2°. Tongue dry; face slightly flushed; os uteri dilated to about the size of a sixpence. Bowels constipated. Ice to suck.—12 o'clock, noon: Child born, accompanied by much hæmorrhage; skin of fœtus desquamating. Twenty-five drops of liquid extract of ergot were given immediately, and repeated in half an hour; but the placenta, not being thrown off, was subsequently removed by means of ovum forceps guided by index finger. The placenta was adherent. Immediately afterwards, on injecting out cavity of uterus with warm Condy's lotion, a second portion of placenta was washed out into vagina, and thence removed. For a short time previously patient had been delirious. Pulse 124; temperature 103·4°; retching continuing. Half an ounce of brandy, half an egg, and two ounces of jelly and beef-tea were injected into rectum every four hours. Linseed poultice to abdomen. Draught of effervescing citrate of potash every four hours.—6 P.M.: Pulse 116; temperature 99°. Not much hæmorrhage; some after-pains; no delirium; retching subsiding.

23rd.—12.30 A.M.: Patient retches occasionally; keeps down her beef-tea and medicine. Slight pains. Pulse 112; temperature 99°.—10 A.M.: Slept at intervals during night; not much discharge. No sickness. Has taken milk, also beef-tea and eggs; feels very weak and exhausted. Pulse 100, small and compressible; temperature 98·4°. Not much pain; tongue clean; some abdominal tenderness.

24th.—Pulse 84; temperature 98·2°. Had a good night; slight pains at intervals; very little discharge.

29th.—Improving since last date; is much stronger. Draught of quinine and iron thrice daily.

March 7th.—Discharged convalescent.

LONDON HOSPITAL.

SEPARATION OF EPIPHYSIS OF ANTERIOR INFERIOR SPINOUS PROCESS OF ILIUM BY MUSCULAR ACTION.

(Under the care of Mr. MAUNDER.)

FOR the following notes we are indebted to Mr. H. Habgood, house-surgeon.

William G——, aged eighteen, was admitted into the hospital on April the 5th. He stated that on the pre-

vious day, while running in a flat-race, he thought it necessary to "put on a spurt," and whilst doing so suddenly felt a sharp snap, followed by acute pain in the right groin, and accompanied by a sensation of "something being out of its place." He also found he could not advance his right foot another step, but being within a few feet of the winning-post he threw himself forwards, and, grasping it, saved himself from falling. He then found it impossible to stand upright without great pain in the right groin, which was somewhat relieved by resuming the stooping posture. He was carried off the field by his companions.

On admission the patient was found to be a strong, healthy-looking lad, with well-formed limbs, and exhibiting no evidence of bone or other disease. There was no history of syphilis, strumous disease, or rickets; and he had ten brothers and sisters who were all healthy. He was observed to lie flat on his back with the thighs extended and the right foot slightly everted. He could rotate the right thigh inwards or outwards, but with slight pain. There was total inability to flex the thigh upon the pelvis, and the attempt to do so caused great pain in the groin. A little fulness was evident in the position of the spinous processes, and the inferior spinous process (the attachment of the straight tendon of the rectus femoris muscle) was found to be detached and freely movable. Cartilaginous crepitus was very distinctly felt, both by the patient and the surgeon. This, and taking into consideration the patient's age—eighteen (the epiphysis unites with the rest of the bone at about the age of twenty-five)—led to the conclusion that it was a case of separation of the epiphysis. The patient was simply kept in bed, the thigh flexed in order to relax the rectus femoris muscle, and a couple of pillows were placed under the knees.

April 21st.—All pain and crepitus on manipulation had disappeared, and patient could flex the thigh without discomfort.

April 25th.—Firm union had evidently taken place, and patient could walk about the wards with ease. Discharged.

The above case is very interesting on account of its extreme rarity.

ST. THOMAS'S HOSPITAL.

CONGENITAL CLEFT PALATE TREATED BY THE APPLICATION OF STRONG NITRIC ACID, AND WITHOUT OPERATION.

(Under the care of Mr. FRANCIS MASON.)

Mr. MASON has at the present time under observation at this hospital several interesting cases of congenital cleft palate, which he is treating by the application of strong nitric acid alone, and consequently without the use of the knife. The ages of the patients vary from a few weeks to several years. Mr. Mason thinks that this method of effecting union is especially applicable to cases in which the cleft is of average extent, and even where the hard palate is partially implicated. In more severe instances the ordinary operation may be required. Mr. Mason finds that the application of the acid is attended with no pain or inconvenience whatever to the patient, and although the cure is more slowly accomplished, it has the advantage of being sure, and of completely closing the fissure in the most perfect manner, without the risk of the parts giving way, either wholly or partially, as too often happens after the usual operation of staphyloraphy. A further gain seems to be that the cases may be dealt with as out patients, as in all the examples now under notice. Mr. Mason, after many trials, prefers the strong nitric acid to any other form of caustic. We shall continue to watch the progress of these cases, and give the results on a future occasion.

WEST BROMWICH HOSPITAL.

FEMORAL ANEURISM; LIGATURE OF SUPERFICIAL FEMORAL ARTERY; RUPTURE; GANGRENE AND AMPUTATION; DEATH.

(Under the care of Mr. H. L. BROWNE.)

THOMAS G——, aged twenty-seven, was admitted into the hospital August 21st, 1875. He had been a foot soldier for six years, and had had syphilis. Three months before, when lifting a weight, he felt something give way on the lower and inner side of the left thigh, but did not take much notice of it at the time. Three weeks after he observed a swelling as large as an egg over the place where he felt the strain. From this time the swelling rapidly increased until the date of admission.

On admission he was thin and cachectic; the left knee was flexed, and a large, tense, pulsating tumour occupied the lower third of the inner side of the left thigh. It was extremely painful, pulsation was extensile and well marked, the bruit audible but not very distinct, there was slight œdema of leg, and no perceptible pulsation in the tibials. There was also an acute pain running down the front of the leg. He was placed in bed with a pillow under his knee, and ordered ten grains of iodide of potassium in decoction of chinchona three times a day, which produced iodism after the fourth dose; the iodide was then lessened to two grains and a half, which he took throughout.

August 23rd.—The bruit was louder, better marked, more rasping, and best heard over Hunter's canal; skin over tumour very dusky; and, in spite of opiates, the pain increased, and the patient continued very irritable and restless. All pulsation in the tumour stopped by pressure on the femoral artery. Pressure on the femoral above the tumour was tried, but it was found impossible to continue it in consequence of the extreme restlessness of the patient. Ligature of the femoral was accordingly resolved upon.

25th.—As the swelling of the leg was increasing it was deemed advisable to preserve the circulation through the profunda, so the superficial femoral was tied in Scarpa's triangle. The operation was performed as in Lister's plan, antiseptically, carbolic spray (1 to 100) being kept going the whole time, a carbolised catgut ligature being used, and carbolised protective gauze and macintosh being carefully applied after the sutures were drawn together. All pulsation and bruit in the tumour had ceased, and the limb wrapped in cotton wool.

26th.—The man doing very well; free from pain. Morning: temperature 100·8°; pulse 100. Evening: temperature 102°; pulse 108.

27th.—Tumour rather less, no pulsation or bruit; patient very much improved in health, and free from pain. Morning: temperature 99°; pulse 92. Evening: temperature 101·4°; pulse 102.

28th.—Still doing well. Morning: temperature 99·2°; pulse 96. Evening: temperature 99·4°; pulse 84.

29th.—Dressing removed and changed under spray. The deep part of the wound had closed completely; the superficial part suppurating, but without smell. Early in the morning pulsation was visible through the dressing, also a slight bruit heard. The man free from pain, and the swelling of limb gone. Morning: temperature 99·2°; pulse 72. Evening: temperature 99·6°; pulse 84.

Sept. 1st.—Temperature normal.

4th.—Pulsation still continuing, and the bruit having increased to its original loudness, a conical leather bag, containing six pounds of small shot, was applied over the artery, below Poupart's ligament, which entirely stopped the circulation through the tumour. The patient now bore pressure very well, being free from pain; and being a very intelligent man, he was easily taught to apply it himself, which he did from two to four hours a day, half an hour at a time.

12th.—Tumour much less; bruit very faint; pulsation diminished and undulatory.

16th.—No bruit, and very little pulsation; pressure still continued.

24th.—Swelling still less; no bruit or pulsation; shot-bag discontinued. Temperature normal.

30th.—When using the bedpan at night he stretched his leg, and said he felt something give way; had intense pain in his leg and knee. Subcutaneous injection of morphia given, which gave relief.

Oct. 7th.—The last six days the swelling has been rapidly increasing; no bruit, but slight pulsation; deep fluctuation not well marked; œdema of leg and foot commenced and increased rapidly, but the foot was perfectly sensible to touch. The pain had been intense, and only kept under by large doses of sedative solution of opium and repeated subcutaneous injection of morphia. No rigors; temperature normal.—4 P.M.: Aspirator needle introduced, but no sign of pus.—5 P.M.: Swelling of foot increasing, but perfect sensation.—7 P.M.: Gangrene commenced in the foot; ex

tending rapidly—10 P.M.: Amputation of thigh performed in upper third with long external flap. The man gradually sank, and died next morning.

In this case there are points of much interest. The man was a well-built, clever man, and during most of the time he was in the army had acted as officers' servant. Although he had a venereal sore, it is uncertain whether it was a hard chancre, as there was no history of secondaries. He was lifting a very heavy iron plate on his left knee when the strain took place. The rapidity with which the aneurism increased is remarkable, as in about nine weeks it had grown from the size of an egg to that of a large cocoa-nut. On dissecting out the tumour after death, a moderate quantity of blood (clotted) was found between the muscles and in the cellular tissue of the limb, not extending below the knee. The sac, which was very thin, had ruptured about two inches above the patella, slightly to the inner side. Inside the sac was a lot of firm old clot, laminated, newer clot, and coagulated blood. There was no trace whatever of the ligature to be found by the most careful dissection, and the femoral artery was patent from the iliac into the sac. The profunda was patent and healthy; the femoral vein inflamed, and fibrine deposited at intervals on the internal coat. There was a well-marked depression and roughening on the femur, about an inch in length, where absorption had commenced from pressure. It was found that the catgut ligature had become absorbed before occlusion of the artery had taken place, and therefore the blood had again forced its way through into the sac. In Holmes's System, vol. v, p. 623, it is stated:—"Anyone desirous of convincing himself of the absorption of catgut has only to employ it for ligatures and treat antiseptically, and in a few days he will find the knots come off with a touch, the part of the stitch embedded in the tissues having disappeared." In this case the division of internal and middle coats had not taken place, and any lymph which might have been effused was not sufficient to block up the artery during the time necessary for a firm plug to form, and any influence the ligature had on the outer coat was entirely effaced by the time the dissection was made. Although Lister's method was most carefully observed during the whole of the operation, there was suppuration, but of an inoffensive nature; and there was no blush or sign of erysipelas on the skin round the wound (the reverse being the case with most other wounds in the hospital at that time). The rapid cessation of pain and improvement in the health of the patient after ligature gave every hope of a fair recovery, the symptoms of obstructed circulation in the limb being lessened instead of increased. Although there was no rise in the temperature and no rigors, it was hoped that swelling coming on six weeks after ligature might be due to suppuration and not to rupture of the sac, so nothing was done until gangrene appeared, which was most rapid. The pulsation, which returned on the fifth day, was put down to active collateral circulation being established, and not to the giving way of the ligature. In spite of the advantages claimed for catgut (the last case in which Mr. Browne used it was one of ligature of the common carotid for aneurism of the external, with union by first intention, and not a single bad symptom to follow), Mr. Browne remarked that he certainly should not use it again, but should depend on the prepared silk. The very atheromatous condition of the artery was probably the cause of the non-division of the inner coats. A post-mortem was not permitted, so the state of the aorta and other arteries could not be ascertained.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.

DOUBLE ACUTE GLAUCOMA.

(Under the care of Mr. LLOYD OWEN.)

FOR the notes of this case we are indebted to Mr. H. Eales, house-surgeon.

C. D——, aged sixty-three, a very nervous old woman, but healthy-looking and well-nourished, was admitted into the hospital on January 5th last, suffering from acute glaucoma in both eyes. Tension = + 3 in both eyes. Could see shadows faintly with right eye, and fingers faintly at ten inches with left eye. Her history was as follows:—For the past twelve months she had suffered occasionally at night from premonitory symptoms of glaucoma in left eye especially, going on sometimes to considerable haziness of vision. In the latter end of December last she was attacked with neuralgia all over the left side of the face, brought on, she thought, by worry and anxiety about family affairs. After this had lasted about a week she was attacked, on December 26th, about midday, with frontal headache, great pain in the eyes, vomiting, and depression of spirits, followed in an hour or two by failure of sight in the left eye, and four or five hours later in the right eye also. By the evening of the same day she could not see to go about the house. (She had not indulged in any excess of diet on Christmas-day, her meals being as usual.) She scarcely slept on the night of the 26th on account of pain, and on the morning of the 27th she found she was almost quite blind, and could only just perceive the light of a candle with either eye, and this light caused her great pain. She remained in this state for nine days, when she was first seen, and ordered two leeches to each temple, as she would not then consent to have any operation performed. The leeches did not bite on the right side, but those applied to the left side gave her ease and somewhat improved the vision of the left eye.

Two days later she came into the hospital for operation, when Mr. Owen on the same day performed iridectomy upwards in both eyes, making the incision through the sclera close to the cornea, and excising about one-third of the iris in each eye.

Within two hours after the operation she expressed herself relieved of pain, and the next day (Jan. 6th) she was quite free from pain, and could count fingers plainly at twelve inches. On Jan. 13th, eight days after the operation, she was discharged, all injection of the conjunctiva and sclera having disappeared, good union having taken place in the incisions, and her vision having improved daily.

On Feb. 2nd the following note was made:—Lens and vitreous humour quite clear in each eye. The optic disc looks quite normal in both eyes, with the exception of the faintest cupping of the left. Not the least trace of myopic choroidal crescent around either optic disc. Choroid and retina generally appear healthy in both eyes on ophthalmoscopic examination. Tension = about the normal, perhaps slightly elevated. Vision = $\frac{xx}{70}$ Snellen, with each eye, with a concave $\frac{1}{24}$ spherical lens; presbyopia = $\frac{1}{14}$. No apparent contraction of the field of vision in either eye.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on the 2nd inst., the President, Mr. George Pollock, in the chair. It will be seen that the proceedings afforded considerable variety, some of the more interesting topics being the report of the special committee appointed to inquire into the subject of movable and floating kidneys, and a detailed account of the etiology of lardaceous disease, by Dr. Fagge, which led to a lengthy discussion. Dr. Greenfield exhibited a remarkable instance of a double mitral valve; and the question of "croup or diphtheria" was raised with respect to a specimen shown by Dr. Squire towards the close of the meeting.

During the evening the following gentlemen were elected members of the Society:—Messrs. J. Bateson and W. Blasson and Dr. Weir.

The Report of the Committee appointed to inquire into the subject of Movable and Displaced Kidneys was read by Dr. Wickham Legg. After dealing with the question of displacement without mobility, the report went on to discuss the causes of undue mobility of the kidney, which to some degree was by no means unfrequently met with. One of two conditions usually prevail: either the organ lies loose from attachment to peritoneum, so as to admit of being moved a certain extent in any direction, or else it is com-

pletely invested by peritoneum, which passes over it to form a meso-nephron of greater or less length. The report concludes by reference to a number of cases fully described, in which one or other of these conditions was discovered post mortem. The report was signed by Drs. Hare, Bristowe, Wilks, John Williams, and Legg.—Dr. WILKS thought the result of the investigation very satisfactory, especially on account of the careful post-mortem observations recorded in the report. He was the more anxious to state this opinion because he confessed to having formerly been sceptical as to the existence of movable kidney other than as a clinical observation. The cases in which it was usually found clinically were young hysterical females; and although he would like to have heard of cases in which observation during life was confirmed after death, yet the number of facts collected showed that such a condition as movable kidney could exist.—Dr. HARE pointed out that one or two of the cases related in the report were instances in which there was evidence of floating kidney during life, and in which the autopsy revealed the condition corresponding to this.—The PRESIDENT also expressed his satisfaction at the report, for, like Dr. Wilks, he had previously been sceptical in the matter. He proposed a vote of thanks to the committee, which was carried by acclamation.

A communication was then read by Mr. WAGSTAFFE from Dr. VANDYKE CARTER upon the Histology of Leprosy. It was a note supplementary to a detailed account forwarded by Dr. Carter, which, however, has not yet come to hand. The present note dealt with a case of confirmed leprosy, in which there was an acute outbreak of nodules upon the depressed and livid patches left by a previous eruption. Microscopical examination of a portion of excised skin bearing these nodules showed at their margins (*a*) copious cell infiltration beneath the cutis; (*b*) numerous large granular and clustered brown and black pigmented masses; (*c*) orange-tinted granules; (*d*) groups of micrococci in the lymphatics, which were, moreover, much dilated. The micrococci occurred in great abundance, and are to be regarded as an essential feature of the affection; and it is interesting to note how in these cases a new leprous eruption may arise from the relics of an older eruption.

Dr. GREENFIELD exhibited a Heart with a Double Mitral Valve, taken from a male twenty-eight years of age who died from acute myelitis. On viewing the valve from above, there were seen to be two orifices, and on laying open the ventricle the mitral valve was divided into two portions; one, the smaller, receiving its chordæ tendineæ from the anterior papillary muscle, and the larger from the posterior. It was apparently due to some abnormal mode of development.—Mr. WAGSTAFFE asked Dr. Greenfield if he could give any explanation as to the manner in which the valve had become so developed, and whether there were any physical signs of the condition during life.—Dr. GREENFIELD replied that there were no morbid sounds audible. The heart was a large one, weighing fifteen ounces, but the valve acted perfectly. He could suggest no hypothesis as to the mode of development.—Dr. PEACOCK confessed his inability to throw any light upon the developmental condition. The specimen was, so far as he knew, a unique one of its kind.

Dr. PEACOCK showed a specimen of Malformed Heart, in which there was obstruction to the flow of blood from the right ventricle into the pulmonary artery owing to a constriction at the point of junction between the sinus of the ventricle and the infundibulum. The orifice of the pulmonary artery was small, and guarded by only two valves; and there was an aperture in the ventricular septum, so that the aorta communicated with both chambers. Such a condition was not common, the obstruction usually existing at the pulmonary orifice. Both the ductus arteriosus and the foramen ovale were closed. The specimen was removed from a child four years of age, who died of measles; there was marked cyanosis. No murmur could be made out until just before death. Dr. Peacock took the opportunity of correcting the prevalent belief that in cyanosis the temperature is subnormal. In no cases of cyanosis that he had observed was the temperature low; it was very often above the normal, and in the present instance, on the supervention of measles, it rose to 104·9°. He subsequently added that he had been informed that when the child was in the Hospital for Sick Children some time before its admission into St. Thomas's a murmur was noted. The only explanation he could frame as to the absence of a murmur when under his observation was that, owing to the free communication between the right ventricle and the aorta, very little blood passed into the pulmonary artery, and that, too, under a low pressure.

Dr. GREENFIELD showed a specimen of Multiple Ulcers of the Stomach, from a female who had suffered from several attacks of hæmatemesis, for one of which she was admitted into St. Thomas's Hospital. She remained in the hospital for about three weeks, without recurrence of hæmorrhage, but died from perforation of an ulcer in the cæcum. The stomach presented five ulcers situated on the posterior wall in the neighbourhood of the lesser curvature; two of them had cicatrised, and there was much thickening of the walls of the stomach, which was contracted in an hour-glass manner; the remaining three ulcers were open. Brinton, out of 637 cases of gastric ulcer, met with three in which there were four ulcers, and two in which there were five.—Dr. GOODHART inquired if there was any evidence to show how the ulcers were formed. Two ulcers were not uncommon, suggesting a kind of inoculation from one another. Was the ulceration in the cæcum quite independent of that in the stomach?—Dr. GREENFIELD said that he had avoided entering upon the subject of the pathology of gastric ulcer. The specimen simply showed that some of the ulcers were of much older date than the others. It also bore out the fact of their occurrence upon the posterior surface near the lesser curvature. It had been noticed that when two ulcers occur they are usually placed opposite to each other, one on the anterior and the other on the posterior wall. They occurred here on both sides of the contraction. Ulceration of the cæcum had been found in several cases associated with gastric ulcer. In the present case the cæcal ulcer was of the kind met with as a result of the accumulation of fæces.

Mr. AIR showed a specimen of Perforating Ulcer of the Stomach, taken from a male subject, who had suffered from dyspeptic symptoms for about six years; and from vomiting about a month before death, which occurred somewhat suddenly with symptoms of peritonitis.

Dr. PEACOCK showed a specimen of Innominate Aneurism. The patient, a gardener, thirty-three years of age, was admitted into Victoria park Hospital having a pulsating tumour behind the sternum; there was a loud systolic bruit over pulsating area, and a double murmur at the base of the heart. The right radial pulse was larger than the left; the voice was hollow, cough clanging. An attack of hæmoptysis immediately preceded death. The whole of the innominate artery was found to be the seat of an aneurism, which had ruptured into the trachea. It pressed upon the right vagus and recurrent nerves. A cicatrix of a bubo in one groin was of interest in connexion with the age of the patient, as suggestive of a syphilitic origin of the vascular disease.—Mr. THORNTON remarked that the usual point of rupture of aneurism into the trachea was just above the bifurcation.—Dr. CURNOW inquired if there were any evidence of syphilis beyond the trace of a bubo, to which Dr. Peacock replied in the negative.

Dr. HILTON FAGGE brought forward some specimens of Lardaceous Disease, which presented some peculiarities in the way of secondary degeneration. He commenced by referring to a case observed by Dr. Moxon in 1869, in which a cirrhotic and lardaceous liver from a syphilitic patient exhibited several cheesy patches on the surface, at first taken for gummata, but proving on microscopical examination to be localised patches of lardaceous material which had undergone a further fatty change. From that time Dr. Fagge had not seen any similar appearances until last year, when, in examining a greatly enlarged lardaceous liver weighing 163 oz. from the body of a man twenty-two years of age, who had suffered from spinal disease with abscess from the age of four, he found similar localised opaque, fatty, and calcareous patches, which by their pallor contrasted with the reddish tint of the non-degenerate lardaceous material. Quite recently he met with a third case. The patient was a man thirty-two years of age, suffering from albuminuria,

dropsy, and diarrhœa. There were some soft nodes beneath the pericranium, and some gummata in the liver, which was also slightly lardaceous, as well as the right suprarenal capsule, intestine, and kidneys. The spleen weighed 10½ oz., and presented the "sago" appearance, with some half-a-dozen whitish-yellow spots or patches of a wedge shape, and seated immediately beneath the capsule. These patches were found to be patches of lardaceous material in a state of fatty change. Their infarct-like form was suggestive of their origin in arterial obstruction; and, as in the other two cases, these patches occurred on the surface of the liver, he concluded that it was a degenerative change set up in the new material by arrested circulation. The recognition of this condition might throw light upon the frequent association of fatty degeneration of the kidney with lardaceous disease. He took this opportunity of strengthening the remarks he made in the course of the debate on syphilis with regard to lardaceous diseases occurring only in subjects of constitutional syphilis, or in cases of chronic suppuration. Mr. Lancaster had examined the post-mortem records of Guy's Hospital at his (Dr. Fagge's) request, and reported that during that period there were 227 examples of lardaceous disease. Of this number 141 occurred in patients who had suffered from chronic suppuration, without evidence of syphilis (60 being cases of phthisis); in five others there was suppuration, but mostly of a less chronic course (one being a case of stricture with suppurative nephritis, one tubercular peritonitis, one deafness with otorrhœa, one abscess of testicle). In 71 cases there was satisfactory (post-mortem or historical) evidence of syphilis, this evidence being of varying degrees of completeness. To these might be added three in which there was a suspicion of syphilis; there were six cases in which there was no such evidence, and two others in which death was due to pyæmia and pneumonia respectively. Dr. Fagge also related facts with the endeavour to show the length of time for which it was necessary for suppuration to have existed in order to produce lardaceous disease, and quoted several cases in point, the one of briefest duration being three months and a half, death occurring from diphtheria, and the lardaceous change being very small in amount.

Dr. FAGGE also showed a Lardaceous Tumour removed from the abdomen. It occurred in a patient under the care of Dr. MOXON, and was seated in the left hypochondriac region. It was of an oval form, and weighed 36 oz. The spleen weighed 3½ oz., and presented scattered lardaceous nodules. The kidneys and intestines were also lardaceous. The tumour was of a yellowish colour, and the application of iodine brought into view numbers of lardaceous nodules scattered throughout the substance of the tumour. He was inclined to adopt the suggestion of Dr. Goodhart that it was, in fact, a greatly enlarged lardaceous splenculus. Microscopically, it was composed of bands of fibrous tissue, intersecting patches of lardaceous material.—Dr. DOUGLAS POWELL thought there were other causes for the production of lardaceous disease besides suppuration and syphilis. In a large proportion of fatal cases of phthisis, irrespective of chronicity or of amount of suppuration, lardaceous disease was met with, especially of the spleen. On a rough estimate, he should say that one out of every five cases of phthisis presented the "sago spleen." There must be some other factor in the production of this change; if it were always due to chronic suppuration it ought to be met with in all cases of chronic phthisis.—Dr. GREEN said that evidently the two causes named by Dr. Fagge were the most common, although there might possibly be others. He inquired if Dr. Fagge's researches bore out the statement that the occurrence of lardaceous disease in syphilis was associated with suppuration. With regard to the localised patches of degeneration of the lardaceous material, he inquired whether in these parts the lardaceous material was in greater excess than elsewhere. He could understand vascular obstruction being produced by excessive lardaceous degeneration. He had seen fatty changes in lardaceous material, although not in the form of localised patches.—Dr. WILKS also believed that the lardaceous change underwent fatty degeneration.—Dr. GREENFIELD had seen an example of lardaceous liver in a lad eighteen years of age, in which there were in addition two or three calcareous masses. The kidney and spleen were also waxy, and in this case there was clear evidence of congenital syphilis. The localised wedge-shaped patches of degeneration might have been produced by obliteration of the vessels, due to syphilitic disease of their coats. In a specimen he exhibited during the present session, in which there were syphilitic gummata in the kidney, spleen, and liver; the spleen and kidney presented some infarcts in process of fatty degeneration, the vessels leading to them being thickened and degenerated. Before, then, accepting the view that the localised patches of degeneration were due to obliteration of vessels by the lardaceous change, the question of syphilis must be disproved. One of Dr. Fagge's cases was syphilitic. Most cases of advanced lardaceous disease showed patches of fatty degeneration, which he regarded as the final regressive change in the slow process of transformation of the albuminoid tissues of which waxy degeneration was one stage.—Dr. FAGGE, in reply, said that he had thought that it was usually the parts between the lardaceous areas that underwent fatty changes. There was no excessive amount of lardaceous material in the localised opaque patches he had described. As to the practical importance of recognising the causes of lardaceous disease, he related the case of a man who came under his care with a soft elastic tumour of the liver and albuminuria. The case was thought to be one of syphilis, but the tumour was tapped, and twenty or thirty ounces of pus withdrawn. The patient had contracted dysentery in India, and no doubt this led to the formation of an hepatic abscess, and that to lardaceous disease as evidenced by the albuminuria. Lardaceous disease might be due to other causes, but the very large proportion of cases occurring in Guy's Hospital during twenty years were, he had shown, caused by suppuration and syphilis. In the course of this investigation, he might remark, he had found, out of 101 cases of syphilis, but very few indeed in which aneurism or fibroid disease of the heart was met with.

Dr. FAGGE then exhibited a specimen of Dissecting Varix of the Femoral Vein, no doubt the result of an old attack of thrombosis. He also exhibited the Lungs of two children presenting obsolete pyæmic abscesses. Each child died of acute pyæmia, and although there was no history pointing to a previous attack, yet the position of the wedge-shaped cheesy patches on the surface of the posterior lobes of the lungs was, he thought, sufficient to justify their being attributed to that source.—The PRESIDENT related the case of a patient who, after an attack of phlegmasia dolens, suffered from pyæmic symptoms. She was ill for three months, and had evidence of pulmonary affection. She eventually recovered.

Dr. SQUIRE exhibited a Larynx from a case of Croup in a child fourteen months of age. The case clinically differed from sthenic croup in its insidious onset, but there were no other cases in the house, and there was absence of pharyngeal exudation and glandular enlargement in the neck. The larynx contained some detached shreds of membrane. Dr. Squire mentioned that this was one of four cases of croup occurring in his practice in the past month; one followed whooping-cough (the case exhibited), and three measles' one only recovering. He showed also the trachea of a dog which had died from measles contracted from one of these children. The animal sickened and died with symptoms of coryza and bronchial catarrh. The trachea and larynx exhibited spots of congestion as met with in measles in the human subject.—Dr. SEMPLE failed to detect any membrane in the larynx shown by Dr. Squire, and expressed his belief that the case was one of laryngitis.—Dr. SQUIRE explained that most of the membrane had been removed for examination.—Dr. GREENFIELD, who had examined the specimen microscopically, remarked that he had been unable to find any histological difference between the changes met with in cases which clinically ran the course of croup or of diphtheria; and if this were, as Dr. Semple said, a case of acute laryngitis the matter would be simplified still more. The appearances he found were a loose corpuscular condition in the trachea; in the larynx, catarrhal elements on the surface, then a laminated reticulated structure, apparently due to transformation of or exudation around cells, and, still deeper, fibrinous exudation adherent to the basement membrane of the mucosa, the epithelium of which is wanting. In the present case he had found less of the fibrinous material which in cases distinctly diphtheritic was always present.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on Friday, April 28th; Sir W. Jenner, President, in the chair. Although there was a marked falling off in the attendance as compared with that in earlier periods of the session, there was no lack of discussion, and Dr. Buzzard's interesting case of glycosuria aroused a somewhat animated debate amongst those holding different views on the pathology and treatment of diabetes.

Mr. SPENCER WATSON read a paper on two cases of Glaucoma treated by Subconjunctival Sclerotomy, the patients being shown. The operation, which was a modification of that performed by M. Quaglino, of Pavia, was performed with a Graefe's cataract-knife with a very narrow blade. After describing the operation, the advantages of sclerotomy over iridectomy in certain cases of glaucoma were discussed. In the two cases brought forward the results were so good as to encourage the hope that sclerotomy might be very useful in many cases in which there was no time to prepare the patient for anæsthetics, since sclerotomy might be performed much more easily and safely without anæsthetics than iridectomy, and a less profound degree of anæsthesia suffices where they are employed, valuable time being thus saved. The operation was also much safer in some cases of chronic glaucoma in which the iris is atrophied and the pupil surrounded by an extremely narrow rim, which is drawn backwards towards the vitreous, instead of being thrust forwards as in most acute and subacute cases. After discussing the pathology of glaucoma and the mode in which relief of tension is effected by iridectomy, Mr. Watson expressed his belief that the operation of sclerotomy would be the future remedy in the great majority of the cases of glaucoma.—Mr. HIGGENS said that he had done sclerotomy in several cases two years ago, but had since given it up. He had from the first feared to go so near to the ciliary region, for fear of setting up sympathetic irritation, and two cases in which sympathetic ophthalmia in the other eye resulted, necessitating extirpation, with consequent loss of vision, showed that the fear was not groundless, and led him to abandon the operation. But in some cases of acute glaucoma he thought it might be practised with advantage.—Mr. MACNAMARA observed that the operation was a comparatively modern one, only of two or three years' standing. No doubt the great danger is the production of a staphyloma, which is undesirable, owing to the fear of producing sympathetic irritation in the other eye. The absence of this danger constituted the advantage of iridectomy. One of the cases shown was undoubtedly very successful; and probably in course of time the cases suited for the operation would be discovered. At present, however, few surgeons would hesitate to perform iridectomy in acute glaucoma, though sclerotomy might have its advantages in some chronic cases.

Dr. BUZZARD related a case of Glycosuria following cerebro-spinal concussion. The patient, a watchmaker, aged forty-one, stepped out of a train on the night of Jan. 17th, 1875, alighting on the permanent way instead of the platform. The distance was about 3 ft., and he fell heavily on the soles of his feet. He felt a "rick" in his neck and numbness across the cervical region, but was able to walk home. He went on with his work for a week, sleeping badly, and with occasional numbness in the back of the neck. A week later there was loss of power in both legs and in the left arm, and some numbness in the soles of the feet. From February 1st to 15th there was loss of power in the left arm and leg, but at the latter date he resumed his work. Dr. Buzzard saw him, in consultation with Mr. Shurlock and Dr. C. Bennett, on April 1st; there were then some want of power in the legs, and slight loss of sensation and of power in the left hand, tremulousness of the jaw on movement, hesitation and thickness of speech, and a rapid pulse. The symptoms pointing to injury to the medulla oblongata, Dr. Buzzard suggested an examination of the urine for sugar, and on testing it sugar, to the amount of two or three grains in the ounce, was discovered. The patient was watched, and the urine tested from time to time, and the quantity of sugar increased during the twelve months which had elapsed. The sugar was constantly present, except for a short time when he was on restricted diet. The patient made a claim against a railway company, and the case came on for trial, but was compromised on account of the unfavourable report of the company's medical advisers. At the present time, although the muscular symptoms had disappeared almost entirely, the urine was still saccharine, and when recently examined by Dr. Pavy contained nearly nine grains of sugar to the ounce; but the quantity of urine was not increased. Dr. Buzzard pointed out that the most important question medico-legally was whether the glycosuria resulted from the fall or had existed previously. There was no distinct evidence of ill-health before the fall, and the patient's weight, which, when first examined, was an average one for his height, decreased by one stone during the first three months; and if the same rate of decrease had been going on for some time he must have been a much bigger man than the evidence showed he had been. Dr. Buzzard attributed the glycosuria to the injury. He explained its occurrence by the fact that the shock would probably affect mostly the medulla oblongata and the base of the skull. Minute hæmorrhage might occur, and subsequent irritation and sclerosis be induced. He raised the question whether a traumatic glycosuria might go on and develop into true diabetes. The continuance of the sugar in the urine for some months rendered the prognosis an unfavourable one.—Dr. SCOTT DONKIN observed that there was one weak point in the chain of evidence—viz., that there was no information as to the state of the urine before the accident, and that the presence of sugar subsequently might be only a coincidence. The accident was not a severe one, and, moreover, the glycosuria due to experimental puncture lasts only three or four days. He believed that diabetes was very rarely traumatic, only one case having fallen under his own observation where accident could be alleged as the cause; and the fact of its being amenable to dietetic treatment proved that it was not of neurotic origin. Dr. Donkin also stated his opinion that experimental results were of no value in considering the pathology.—Dr. PAVY expressed his belief that diabetes is a neurotic disease, experience supplying abundant evidence that it occurs in connexion with injury to the nervous system. The case narrated by Dr. Buzzard supported this view. No doubt it would have been well to know whether there was sugar in the urine previous to the accident, and also whether it persisted when the patient was last seen. From the quantity of sugar passed it was evidently a case of glycosuria as distinguished from what might be called idiopathic diabetes, which was shown by the small quantity of sugar passed. Dr. Pavy narrated a case recorded in his work on the subject, in which the disease undoubtedly arose from injury. He insisted strongly on the fact that, whilst in many cases diabetes may be restrained by dietetic treatment, there are many others, especially those occurring in young subjects, which run their course and frustrate all treatment. Dr. Buzzard's case was one simply of glycosuria, and was not to be considered serious. He related a case of a cadet at Sandhurst who, after a violent blow at the back of the head, had true diabetes, and died at the end of the usual time—viz., about two years.—Dr. POORE expressed some surprise that no details of the family history of the patient had been given. Many facts pointed to the belief that diabetes is a neurosis, and related to other neuroses, and it would be interesting to know if there were any facts of the kind in the present case. Another point was the rapid recovery of the patient when his claims were settled, and the consequent anxiety got over.—Sir WILLIAM JENNER observed that although the case was very interesting, it was not clear that the occurrence of sugar in the urine resulted from the accident. The history of previous ill-health, carbuncle, and so on, gave rise to the belief that the glycosuria existed beforehand. Dr. Pavy had insisted, with good reason, on the utter worthlessness of dietetic treatment in some cases, especially in the young; in some cases, doubtless, diet was sufficient, in others of no value at all. What is the actual difference between these cases is unknown at present. In a case where he had found sugar in the urine of a middle-aged gentleman, and ordered a restricted diet, the patient immediately said, "Oh, you mean that I have diabetes."

On inquiry he found that his son had died rapidly of diabetes. The father, however, was under treatment for some time, the glycosuria was intermittent, and he was now perfectly well. In another child of the same parent he had accidentally found sugar in the urine after an attack of diphtheria. In the case of a lad who had been under his (Sir W. Jenner's) care, the treatment by skim-milk had proved absolutely inefficient. But it must be remembered that some neurotic affections—e. g., neuralgia—are highly amenable to diet.—Dr. BUZZARD, in reply, said that he could obtain no information as to the family history of the patient. The rapidity of recovery was not so marked in this case after compensation as in many other cases of railway accidents, and the patient was always cheery in tone. He thought that the argument that diabetes was not a neurosis because it can be relieved by dietetic treatment was fallacious, seeing that even in experimental glycosuria in animals, variation in diet or the occurrence of fever would suspend the excretion of sugar. The course of the discussion, and the variety of opinion amongst the speakers as to the true explanation of the case, suggested that the conflict of opinion in medical evidence on trials was not due, as was sometimes hinted, to partisanship, or to the conditions under which medical witnesses were called; in fact, the reason why such cases go to trial is that there is a difference of opinion, otherwise the cases could be compromised beforehand.

Dr. GREENHOW related a case of Patent Ductus Arteriosus, attended by a thrill and murmur, death occurring from phthisis. The patient, a girl seventeen years of age, was under his care at the Middlesex Hospital. Several members of the girl's family had died of phthisis, and she herself had had a cough from childhood, which had, for about a year before her admission to the hospital, become much more severe. During that time also she had been losing flesh, had had shortness of breath, and oftentimes hæmoptysis. The catamenia had scarcely appeared. The girl was small and ill-nourished; had a contracted chest, clubbed fingers; pulse 130, and temperature 99·6°. There was marked dulness upon percussion over the upper part of the left lung, and gurgling and pectoriloquy were heard at the same region upon auscultation, with tubular breathing at the right apex; and moist crepitation throughout the remainder of both the lungs. The visible area of the heart's impulse was extended; and in the second, third, and fourth left intercostal spaces close to the sternum, especially the second, a purring thrill was heard. In this same space also a harsh systolic bellows murmur was heard, followed by a continuous humming murmur, which was audible throughout the remainder of the period of the heart's action until the bellows murmur recurred. The patient's phthisical symptoms abated somewhat, and she then left the hospital; but was readmitted a fortnight subsequently, with crepitation throughout the lungs, of which she shortly died. At the necropsy the left lung was everywhere adherent to the parietal pleura, and in its upper lobe were numerous cavities, evidently of old date; elsewhere there was lobular consolidation. A large mass of indurated glands closely surrounded the pulmonary artery and arch of the aorta. The upper part of the right lung was consolidated. The right ventricle of the heart was enlarged, and its walls were thick and firm. The right auricle was also dilated. The foramen ovale was closed. In the pulmonary artery close to its bifurcation was a small orifice, of the size of a crowquill, its margin being almost surrounded by a valve-like fold of the lining membrane. This was the aperture of a patent ductus arteriosus, about a quarter of an inch in length, that opened into the lower wall of the aorta just beyond the left subclavian artery. The aortic opening was about double the size of the other opening, and was also guarded by a reduplication of the lining membrane. The left cavities of the heart were natural; all the valves were normal. The aorta was somewhat constricted just below the subclavian artery. Dr. Greenhow remarked that it had been difficult, during the patient's lifetime, to form any conclusive opinion as to the exact cause of the thrill and the two murmurs, though they were (from their situation) evidently connected with the pulmonary artery, but not with narrowing of the pulmonary orifice. It was true that both aortic and pulmonary orifices were smaller than natural, but they maintained their normal ratio to each other, and also probably to the diminutive stature and imperfect development of the patient. Dr. Greenhow had thought the thrill and murmur due to pressure upon and displacement of the pulmonary artery, resulting from chronic lung disease. As regarded the humming sound, he could form no satisfactory theory during life; but it appeared now to have been probably produced by the passage of blood from the aorta to the pulmonary artery through the open ductus, and over the semilunar valve-like folds which surrounded its extremities. That the stream took that direction he thought was evident from the absence of cyanosis, and from the larger size and funnel shape of the aortic orifice of the duct. Dr. Peacock had seen the specimen, and had suggested that the ductus arteriosus might have been prevented from closing by the constriction of the aorta beyond the left subclavian artery; in which situation the vessel, in such cases, was sometimes found entirely obstructed.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

DISCUSSION ON THE MANIFESTATIONS OF SYPHILIS IN THE TEETH.

MR. NAPIER read a short address in which, after a few prefatory remarks intimating the decision of the committee that the introduction of a subject for debate should, upon this occasion, follow the Chairman's address, and expressing his hope that the subject which it had occurred to him to select would have points of interest for all who made pathology their study, he invited those present to assist in a discussion that should have for its object the consideration of the Causes and Conditions of the Disease of the Teeth commonly known as Syphilitic. He brought the subject before them specially with a view to arriving at a determination whether the existence of inherited syphilis may be diagnosed with certainty from the presence of those symptoms which are usually supposed to indicate it, or whether other causes, such as struma, the administration of mercurial medicines in infancy or childhood, severe illness during first or second dentition, or deficiency in nutrition, such as (more obviously) induces rickets, &c., may not be instrumental in bringing about results at present attributed to syphilis only. After complimenting Mr. Jonathan Hutchinson upon the results of the careful study that he has bestowed upon the subject, his labours in connexion with which, it was pronounced, entitled him to the gratitude of all who were anxious for the further elucidation of the matter of which they were at present treating, the speaker briefly enumerated his own reasons for hesitating to admit the manifestation of a semilunar notch upon the two front teeth as an infallible indication of syphilitic taint. That to which he was inclined to give most prominence was the rarity of its appearance in comparison with the number of the certified inheritors of syphilitic disease; but he also attached importance to the fact that it is wholly confined to the teeth of second dentition, although other recognised results of descended syphilis are apt to assert themselves from the commencement of, or very early in, infantile life. In conclusion he deprecated the acceptance of any theory that has not first been submitted to the most minute tests, one of the most valuable being that which is imposed by a free circulation throughout the scientific world.

Dr. DRYSDALE remarked that he was surprised that Mr. Napier, with his great opportunities of investigating the subject, could express a doubt as to the character of syphilitic teeth.—Mr. F. MASON took syphilis to be a disease that infected the system, and not a local disease. He agreed with Mr. Napier that it was exceedingly difficult to make out the condition of the teeth. He could not accept Dr. Drysdale's conclusion as to the value of the so-called syphilitic teeth as a test of syphilis, inasmuch as during a fifteen years' experience he could not recall a single patient who had an infecting sore who suffered from spots or ulcerated throat afterwards, nor in cases where those teeth appeared had he ever been able to get a distinct history of syphilis.—Mr. A. COLEMAN said it had been his good fortune

to be a colleague of Mr. Hutchinson when he first noticed the peculiarities of these teeth, and his experience was that they were almost invariably connected with syphilis. Though he fancied he had seen one or two exceptions—viz., in families where the older children presented no symptoms of the disease at all, whilst the third or fourth children showed the typical teeth, and those subsequently born presented no signs of specific disease; yet, as a rule, he felt convinced that Mr. Hutchinson's views were correct, and even if it cannot be said for a certainty that a person with these teeth has inherited syphilis, there is at least great probability that he has.—Mr. S. HAMILTON CARTWRIGHT thought that mercurial and strumous teeth had frequently been mistaken for syphilitic teeth, and that the truly characteristic type seen in the permanent incisors was one of the surest tests of syphilis. He said that Mr. Napier laid stress on the fact that the temporary teeth were unaffected; but this was naturally to be expected, since those teeth commenced calcification *in utero* at a time when specific inflammation did not take place. The permanent teeth were, however, calcified much later, and the teeth most affected—viz., the incisors—began to be calcified at eight or nine months after birth. He looked upon syphilis as an exanthematous disease running a specific course, the skin and mucous membranes being particularly liable to be affected. Now the teeth, like the hair, were merely dermal appendages, the one being formed by an involution of the Malpighian layer of the oral and mucous membrane into the submucous tissue; the other from a similar downgrowth of the Malpighian layer into the corium. The superficial structures being most affected in secondary syphilis, might it not be that the specific poison which lay latent in them during intra-uterine life develops itself in organs formed from these superficial structures at a later period of life? Another point which led him to adopt Mr. Hutchinson's view was that the peculiar lunated notch in the typical teeth was always symmetrical, which is not the case with those irregularly formed teeth resulting from rickets, mercury, or simple stomatitis. That the bicuspids were so often unaffected he did not wonder at, as they were calcified at a period when stomatitic eruptions were not so frequent, and when the poison might have been eradicated from the child's system. Mr. Napier had spoken of mercurial teeth; these he did not believe in as being different from other stomatitic teeth, for he had seen as many examples of them in Germany, where mercury was rarely given in comparison with England, where it was so frequently administered. Mercury affected the mucous membrane, and it was only in this way that it would affect the teeth, as would ordinary stomatitis. The symmetry shown in the so-termed syphilitic teeth was a proof to him that syphilis in the child was of the secondary stage, and not only, as some supposed, a result of mere heredity.—Mr. RISDON, being connected with a children's hospital, doubted whether the teeth spoken of as syphilitic were really so, and he could corroborate what Mr. Coleman had said as to only one or two members of a family being affected. He thought they might be the result of struma, and when they appeared after scarlet fever they might arise from mercury.—Dr. BILLING then made a few remarks on the value of the Society, and the high character of its objects.—Mr. JONATHAN HUTCHINSON remarked that the subject had been treated so exhaustively by different speakers that he would only state his more recent experience. He wished that Mr. Napier had brought forward more facts to prove his reasons for scepticism in regard to syphilitic teeth, and he thought a good means of arriving at truth would be to challenge in a friendly way those surgeons who were practising dental surgery to produce patients or casts in disproof of his experience. He did not deny that disbelief in his theory was very prevalent in all ranks of the profession save in that which is concerned with diseases of the eye, and he did not wonder at—nay, rather admired—the scepticism of those who thought that the malformation of a single pair of teeth could not be indicative of specific disease. Had it not been for his experience of diseases of the eye he might have joined their ranks. He was surprised to find at the Pathological Society some time since how many did not understand the peculiar types of syphilitic teeth, and it was therefore necessary to have the most intimate knowledge of their special characteristics, for he was decidedly of opinion that they were quite distinct from all ordinary forms of malformation. If he saw a pair of central incisors with the peculiar lunar notch he would feel certain that the possessor of them had been syphilitic. Other teeth, no doubt, were often malformed, but not in that peculiar way, and he should therefore draw attention to those teeth only—viz., the permanent central incisors of the upper jaw. He thought that the reason why other teeth were so affected was probably owing to the fact that those suffering from syphilis had taken mercury, which also left its mark upon the teeth, and he inferred that those who had taken least mercury would present the most perfect syphilitic teeth. (Mr. Hutchinson here explained his theories by means of various diagrams.) He then alluded to an interesting case which had recently come under his observation. Mr. Waren Tay was seeing his patients at the Skin Hospital, when a woman with acne on her face sought his advice. On examining her he found the peculiar syphilitic teeth, but no other indication of that disease. She was sent to me for examination. There were no syphilitic symptoms, for she stated that her sight was perfect, but on examining her I found that she was suffering from defective vision and had marked choroiditis; and this latter, in conjunction with the malformed teeth, is an almost certain proof of inherited syphilis. Concerning mercurial teeth, he fully admitted the justice of Mr. S. Hamilton Cartwright's remarks as to the probability that they were in reality stomatitic, or at least owing to the somewhat similar effect of that mineral upon the mucous membrane, which in English practice he believed was by far the most frequent influence which produced them, and his attention had been drawn in that direction because they were nearly always found in connexion with lamellar cataract. Mr. Coleman and himself hit upon the fact that lamellar cataract is always found in connexion with ill-formed teeth, and were generally connected with convulsions in infancy. He thought that the convulsions caused lamellar cataract, and the mercury given to cure them the malformation of the teeth; and just as the central upper incisors were the test teeth for syphilis, so the first molars were the test teeth for mercury, the other teeth not being so affected, owing to the fact that they were developed at a period when stomatitis was not so frequent. Mr. Hutchinson finally suggested that fellows of the Association should attempt to discover whether any peculiar signs were to be found in the teeth of those of a rickety or scrofulous diathesis, for information on these points was of the most vague description, and that in ophthalmic practice was to be found the best confirmation of syphilitic teeth.

Mr. Salter then proposed the adjournment of the meeting, and the chairman expressed a hope that any visitors present who were interested in the discussion would be present at the resumption of the debate on Wednesday, the 24th inst. The meeting then adjourned.

Reviews and Notices of Books.

Clinical Lectures on Diseases of the Heart and Aorta. By GEO. WM. BALFOUR, M.D. London: J. & A. Churchill.

INDUCED by the greater facility for adhering to those subjects only which have come under his own observation, Dr. Balfour has chosen the lecture form in which to embody the essence of his clinical teaching during the last eight years.

In the opening lecture the diagnostic value of each sign and symptom is carefully weighed, and simple but practical directions for aiding examination are given. The author holds that by palpation, inspection, and percussion, the nature of any heart affection ought to be arrived at, and that auscultation should be held in reserve to corroborate the conclusion reached; and he says that if this order of investigation be reversed confusion must follow, since "of all the signs of cardiac disease murmurs are those most usually confided in, and yet they are really those of least value."

When treating of Aortic Incompetence, the erratic nature of the murmurs is dwelt on, and an ingenious speculation as to the cause advanced; while it is added that we must always remember that though a diastolic murmur at this

level is pathognomonic of aortic regurgitation, "yet that, in regard to prognosis, the ascertaining of the mode of propagation of this murmur is of much more consequence than its mere detection."

In estimating the causes of defective nutrition of the walls of the heart in aortic regurgitation, it is shown how nutritional changes add to hydrostatic influences in bringing about "the rupture of compensation" which leads to the fatal termination; and, as to treatment, Dr. Balfour boldly says of digitalis, "there is no other disease in which this drug is of more value, and no other in which its curative action can be more efficiently demonstrated than in this."

The lecture on Mitral Stenosis is exhaustive and valuable, and the cases given are clearly and pointedly recorded. That on curable mitral regurgitation is very suggestive, the author holding that the cardiac bruit of chlorosis, as well as of all febrile diseases whatever, is strictly auricular in its source, and is caused by flaccid dilatation of the ventricle from malnutrition and temporary regurgitation through the mitral valve.

The subject of Hepatic Pulsation is dealt with, and a threefold cause assigned.

In Angina Pectoris Dr. Balfour gives chloroform without fear, and regards it as the best means of narcotising the nervous centres through which the reflex action takes place, and setting the heart free.

There is an excellent lecture on the Therapeutics of Cardiac Disease, in which the value of, and precautions in using, digitalis are clearly put. Of arsenic it is said that "its effect in removing cardiac pain of an anginous character is really something marvellous."

Omitting for want of space the Diagnosis of Aneurism of the Aorta, we come to what is perhaps the most remarkable chapter in the book, "On Treatment of Aneurism by Iodide of Potassium," in which the cases given are most instructive. The dose was for the most part half a drachm three times a day, and the rapidity of relief astonishing. The theory of action is that the drug has no power whatever in producing or aiding coagulation of the blood, but is beneficial by its sedative influence on the heart, and that, while thereby permitting the sac to contract, "this is rendered more permanent and powerful by a thickening of the walls of the sac, which also appears to be the result of the iodide"; and the concluding sentence of this lecture is: "While, therefore, I freely acknowledge the importance of recumbence as insisted on by Tufnell, and even admit the possible utility of a limitation of the diet in such cases within reasonable limits, I claim for the iodide of potassium that it is capable of relieving the symptoms of aneurism in a most remarkable manner without any adjuvant treatment whatever, though, of course, its success may be materially promoted by such treatment."

We can honestly say of this book, that it is the work of a thoroughly practical physician, who has studied not only his subject, but the best mode of communicating it.

Famines in India: their Causes and possible Prevention. The Cambridge University Le Bas Prize Essay, 1875. By A. LUKYN WILLIAMS, B.A. London: H. S. King & Co.

BY a judicious use of the various reports on the subject the author has produced a very valuable essay, from which those unacquainted with India may learn the combination of circumstances that bring about the sad periods of distress, with the painful details of which we are becoming only too familiar.

Although several causes are assigned, the reader cannot help feeling that one stands out pre-eminently potent; for, given the meteorology, climate, and water-supply of the country, the nature of the foods required and the state of agriculture (in which competent judges think we in England cannot suggest any real improvement), we find these so accommodated to each other as to provide sustenance from year to year till one link in the chain breaks, and the rainfall becomes either insufficient or delayed. Thus, as Sir Bartle Frere says, "a good or bad season depends often on the rainfall within a single fortnight." It is therefore evident that, however much the character and reproductiveness of the people, the conditions of land tenure, or the exhaustion of the soil from want of the proper application of manure, may affect the greater or less prosperity of a district, still the all-important factor in producing a sudden invasion of famine is the amount and time of the annual rainfall. Accordingly, the chief means of prevention must be the formation of a water-reserve by irrigation works, which, if supplemented by better means of communication between the afflicted localities and their more fortunate neighbours, would afford a reliable safeguard. But all this becomes in practice far more a financial problem than an engineering difficulty. At the same time the author shows that science offers in the efficient development of meteorological observation a most encouraging probability of foretelling the advent of these calamities by many months, and never was a forewarning a more effectual forearming.

We can strongly recommend the essay, as affording to the general public a basis of information from which to pursue a subject which is fast becoming a great national responsibility.

A Class-book of Chemistry, on the Basis of the New System. By EDWARD L. GOUMANS, M.D., author of the "Handbook of Household Science." H. S. King and Co. 1876.—This is an English edition of an American work. We are sorry we cannot praise it. Too much is attempted, for one thing. Not only is the whole range of chemistry, from hydrogen to ferment diseases, touched upon in short sections, each insufficient to explain anything properly, but more than one-third of a volume of only 350 pages is devoted to chemical physics, gravity, molecular attraction, heat, light, and electricity. The author is evidently but superficially acquainted with his subject. For example, we may point to the section on osmose; to the astonishing statement on page 191 that "gunpowder is an intimate mechanical mixture of about one part nitre, one part sulphur, and three parts charcoal"; to the definition of isomorphism on page 44; and to the account of the modifications of oxygen on page 214. In the last-named passage it is gravely stated that "oxygen is known to us in three modifications, consisting apparently of one, two, and three atoms of the radical bearing the same name." The first of these, long known as antozone, was proved years ago to have no existence. We have only to add that the book is described on the title-page as "re-written and revised."

The Student's Guide to Medical Diagnosis. By SAMUEL FENWICK, M.D., F.R.C.P., Physician to, and Lecturer on Medicine at, the London Hospital. Fourth Edition. Churchill and Sons. 1876.—Judging from the rapidity with which it has reached the fourth edition, the author of this "Guide to Medical Diagnosis" has evidently succeeded in meeting the requirements of a large number of readers. As regards arrangement, simplicity and clearness of style, and the way in which the information has been sifted out, Dr. Fenwick's "Guide" well merits the popularity it has attained. Considerable changes have been made in the present edition. Fresh woodcuts have been added, as well as a new chapter on animal parasites. Dr. Woodward's tabular view of the seat of lesions in paralysis has been revised, and the edition has been decidedly improved as well as enlarged.

THE LANCET.

LONDON: SATURDAY, MAY 6, 1876.

THE Conjoint Scheme must not yet by any means be regarded as secured. It is still possible that we are rather premature in regarding the acceptance of it by the College of Surgeons as a guarantee that the Scheme will be adopted by the other medical authorities in England. The Scheme is so huge, the body of examiners so large, the powers delegated to the Committee of Reference are so great, the character and subjects of the examinations so undetermined, that it is very easy to imagine that dissatisfaction may yet arise, even in quarters where it might be least expected. From all accounts the Universities are not violently enamoured of the Scheme. We scarcely know why they should be dissatisfied, unless it be that they begin to see that they are undertaking a grave and onerous duty for which they will have no recompense and little thanks. Hitherto the representatives of the English Universities have been faithful supporters of the Conjoint Scheme, as regards both its principle and its form. Their delegates have assented to the present Scheme adopted by a majority of the Council of the English College of Surgeons, under the influential presidency of Sir JAMES PAGET. It will be serious indeed if they now become critical and withhold their assent. Yet this is possible, and will wreck the present Scheme, as so many have been wrecked before. Neither in the University of London nor in the older Universities is the Scheme likely to be accepted without debate, if, indeed, it has not already been practically rejected by one of the latter bodies. Even the College of Physicians, which met last week, did not adopt the Scheme. They adjourned the consideration of it to the next meeting. By that time we may hear of its rejection by one or more of the Universities, and the College will be saved from the responsibility of marring the prospect, lately so bright, of a Conjoint Scheme being realised.

We can only say that a great responsibility will now rest upon the bodies that dissent. Dissent now, after their delegates have assented, after the corporation most deeply interested has assented—in a spirit of self-sacrifice which deserves high praise,—will render almost hopeless any voluntary combination of English bodies. Far larger questions of medical reform may then be raised than will be either convenient or desirable. We admit the faults of the Scheme. We admit that it is exceedingly doubtful whether it will work satisfactorily, especially while Scotland and Ireland are still uncommitted to any similarly large and thorough conjunction of bodies. But England should lead in such questions, and Scotland and Ireland may be more influenced by her example than by any other consideration. Be this as it may, the English bodies are almost committed to an experiment, and they will suffer in reputation if not ultimately in interest, if they do not boldly try a scheme which has been so long promised, and which has been approved unanimously by their representatives. Things cannot remain as they are.

WE ventured to prophesy last week that the new Army Medical Warrant would be published immediately, and it has come at last. It is a document which will be scrutinised with interest by all, and the Government may be sure that no time will be lost in subjecting its provisions to a keen criticism and thorough sifting. And when the intellectual threshing fit is over, the grain will have been pretty well separated from the chaff. It needs no special acumen in anyone acquainted with human nature to foresee that the Warrant will be very differently regarded by those whose interests are favourably and by those whose interests are adversely affected by it, and a little consideration of the document will serve to show that it will have a striking effect in rising up these two classes. But the only true test to apply is the general and broad one—its effect on the public service as a whole. We cannot hope to do much more at present than enumerate the main changes in this Warrant. To begin with, it is not a reform, but a revolution of the service that is effected. The Warrant is divided by a plain line of demarcation into two parts—one which concerns the men the Government hopes to get, and the other those which it has already got.

To commence with the former. Admission to the department is by public competition. The successful candidate then goes to Netley, and after passing satisfactorily through the course of instruction at that institution, is commissioned as surgeon for ten years, and becomes entitled to the yearly pay of £250, with the allowances of his relative rank. From the date of joining at Netley up to that of his passing his final examination, he is to receive five shillings per diem, as at present. He will then have to proceed on foreign service —India or the colonies—and complete a tour of service abroad of probably five or six years at least. At the end of ten years he will, if not of the number specially selected, have to relinquish the service and retire with a bonus of £1000. Should he become disqualified by ill-health, contracted in and by the service, from completing such term of service, he will be entitled to rates of half-pay of eight shillings or six shillings per diem, for not more than six months at a time, according as he has more or less than five years' service. If he has served over five years, and is still unfit at the end of six months' sick-leave on half-pay to resume his duties, he will be discharged with a gratuity proportionate to the length of the full-pay service which he may have completed. Such gratuity may be expressed (in hundreds) by saying that it is fixed at £100 less than the number of years of completed service: £800 for nine years, £500 for six years, and so on. A separate clause provides for cases of sickness brought about by vice or misconduct, &c. Every year selections, *not exceeding six in number*, may be made from the surgeons on temporary service, of those who are to be retained in the service and promoted to the rank of Surgeon-Major after twelve years' service. In other respects the same rules, rates of pay, relative rank, and rewards apply, in the main, to the future and present officers of the department alike.

Here let us pause. Some regard this as a bold and bad measure. Others, who hold that the principle is a sound one, will think that the Government have spoilt it in carrying it out. A short-service system, if properly applied, might benefit the profession without injuring the service, and, according to Mr. HARDY'S own showing, be a financial success at the same time; and yet we have no belief in the maintenance of the present application of it, and for the following reasons:—If the State is to save £50,000 per annum, it could only come out of the department, and £300 a year, *plus* allowances, is not too much to secure the services of a good man for the best ten years of his existence, and with the risk to life and health of tropical service. It must be remembered that cholera, dysentery, and fever are *the* diseases of tropical climates, and that new-comers and non-acclimatised persons, and those of the ages of these young surgeons are most exposed to contract them. Broken health in early manhood is irreparable, and not to be compensated by half-pay for six months, or a gratuity. And the limited pay of five shillings per diem for the interval spent at Netley school—excellent and highly useful in every way as is the instruction there—is another mistake. Lastly, we are utterly sceptical that six selected surgeons will prove adequate to the requirements of the continuous or permanent service. Where the rewards are necessarily limited, as in the Army Medical Service, the only way to secure contentment and efficiency is to fix some reasonable limit to the number of those competing for them, and if this process of sifting had been applied every ten years, so as to sift out all the inefficient men, and allow the discontented ones to go, the method would have been a very good one for the senior or continuous service section. And a word as to India. Is the £250 per annum to be supplemented by all the allowances attaching to relative rank in that country or not? This is a vital question about which various communications have already reached us.

And now for the medical service as it is. We have seen how Mr. HARDY has greeted the new: how will he speed the parting guests? The results at which we have arrived may be summarised as follows:—The department is henceforth one and undivided, and by the cancelling of Article 15 in the Warrant of 1873, the principle of so-called unification, pure and simple, seems to have been adopted. Retirement is compulsory at sixty years of age for the administrative ranks; that for the executive remaining as before. Compensation is to be made to medical officers for the loss sustained by them from the substitution of sixty for sixty-five as the age for retirement. The Surgeon-General and Deputy Surgeon-General obtain their relative rank of major-general and colonel respectively at once, instead of having to serve a qualifying period of three years for it, and this affects the question of pension. Promotion at twelve years' service to the rank of Surgeon-Major is conceded; and the examination for such promotion abolished. The principle of selection for the upper ranks is also plainly enforced; although this is not new, its application will be. There is one obvious anomaly, however, in the making of these selections. It still remains in the hands of the Commander-in-Chief and Secretary for War, as in previous Warrants. To administer the department will, more than ever, require what military doctors call a "strong-backed" man. The present Director-General has the courage of his opinions; and it is to some a matter of regret, to others of rejoicing, that it should be so. The compulsory retirement at sixty years of age, the promotion at twelve years' service, and the matter of relative rank, are unquestionably great concessions to the service as a whole. Whether the department will be satisfied or the reverse, time will prove, as time will prove whether the experiment of short service will succeed; but common honesty compels us to award in the meantime to Sir WILLIAM MUIR, and not to this or that deputation, the credit of these concessions—which must inevitably, we should say, give a great impetus to promotion.

WE have given in another part of our columns an abstract of the report furnished by the Board of Medical Studies at Cambridge to the Syndicate appointed to consider the requirements of the University in different departments of study. We regret that we cannot approve of many of the recommendations set forth in the report. Lately, in an article on "Medical Degrees at the Universities," we pointed out what we thought ought to be the duties of the Universities with respect to medical teaching, and we expressed a desire to see them confine themselves strictly to the preliminary scientific part of medical education, and to encourage their students to seek elsewhere for instruction in purely medical subjects. In the recommendations before us quite a contrary tendency appears, and the Board of Medical Studies seem ambitious to possess a professorial staff that shall equal in number the students studying medicine at the University. The statement that the present Linacre lecturer cannot reasonably be expected to devote to his subject all the time and labour which its high importance demands because his stipend is so small, ought to show the folly of endeavouring to foster studies for which there is no demand. We cannot believe that the difference of a few pounds the University would be able to give its teacher of Pathology over and above the present stipend of the Linacre lecturer would make much difference in the energy of the teaching. To teach pathology with success a constant supply of fresh material is needed, which Addenbrooke's can hardly furnish; to teach it with vigour the lecturer must have something more inspiriting than empty benches. Again, with regard to Professorships of Surgery and Midwifery, if these are established students will be encouraged to remain at the University to prosecute their studies in these branches. Can it for one moment be supposed that a town like Cambridge could furnish material for such courses? How many important operations in surgery or midwifery would a student have an opportunity of witnessing during the time of study? Who is to be Professor of Medical Jurisprudence? To take rank as a University professor, he must at least have made that subject a special study, and what man who had thus devoted his time and attention would care for a small stipend and small class to waste his opportunities in a dull country town where not above two or three times in the year he would have an occasion of being consulted in his own special branch of knowledge? The fact is, that purely medical education can only be properly carried out in London or

other large centres of population, and the sooner the Boards of Medical Studies at our Universities recognise this fact the earlier will the medical teaching at Oxford and Cambridge be placed on its true basis, and made more useful both to the profession and the community. We are glad to see that certain members of the Board have expressed dissent to some of the recommendations contained in the report; we hope these expressions will take a practical form. We heartily concur in the proposal that the present teaching of physiology at the University be made more definite by the appointment of a professor who is to be precluded from professional practice, and we also agree with Professor HUMPHRY'S recommendation, which is also endorsed by Mr. HOLMES, that "the study and teaching of anatomy and physiology ought to be incorporated into one—i.e., the professor or professors ought to teach both simultaneously." The establishment of a pathological laboratory and a museum of materia medica are likely to prove useful, provided the money expended on them is not taken from what ought to be spent on the teaching of anatomy, physiology, and chemistry.

In conclusion, we would revert to the question of the period of residence required at the Universities, which we dwelt upon in our last article. We again express our belief that a reduction in the time spent in the Universities would induce more men to seek degrees at Oxford and Cambridge. This increase of students would greatly enhance the vigour of the scientific teaching, which might rise to such eminence as to make a residence at one or other University a *sine qua non* with all seeking entrance to our profession. We believe that in the majority of cases eighteen months or two years would be quite long enough for this preliminary scientific training, though we admit in the case of Honour men a larger period might be necessary. The practical duty of the Universities, however, we submit, is not to turn out a few exceptionally brilliant men, but to bring the advantages of their social and intellectual culture to bear on all ranks. The status of a profession depends not so much on the brilliancy of a few leaders as on the character of rank and file. We hope, then, to see the time when the majority of our profession will have the advantage of a University training.

A MOST important case of alleged milk adulteration has just occurred in Birmingham. The well-known and experienced public analyst, Dr. HILL, reported a sample of milk as deteriorated by the removal of cream. The Somerset House analyst, whose report is printed *in extenso* in a local journal, found the sample to contain of solids, not fat, 8·21 per cent., and of fat 2·83 per cent.—figures which do not appear to have differed remarkably from those of Dr. HILL. A different interpretation was, however, placed upon them, and it was stated that the results did not, in the experience of the analysts, justify the conclusion that either cream had been abstracted from, or water added to, the milk. The grounds for this decision were very clearly stated, and the prosecution was, of course, dropped.

It can, we think, hardly be doubted that the Government authorities were right. We have not got the figures of Dr. HILL, but gather that he found about 2·5 per cent. of fat. That is the *minimum* adopted by the Society of Public Analysts, and therefore by that standard implies no adulteration. The standard for solids, not fat, is fixed by the same body at 9 per cent., and it might therefore have been argued that the sample in question was adulterated with water. But this was not charged, and it is considered by many, the Somerset House chemists among the number, that the standard is too high. Fat is often under-estimated, and the solids not fat, by consequence, over-estimated; but we are convinced that poor samples of milk are often to be met with in which both constituents fall below the Society's standards. It may, of course, be argued that such poor milk should not be sold as genuine; but it is genuine, though poor, and its sale is not, at present, prohibited by law. The fact that different layers of the same sample of milk sometimes yield very different proportions of fat has also to be taken into account.

The question is singularly difficult. On the one hand, it is obviously necessary, as the law now stands, that the standard of purity shall be fixed so low as not to exclude any genuine, if poor, milk; for otherwise tradesmen who have committed no offence against the law may be, and certainly in some cases will be, punished by the law. On the other hand, to fix too low a standard is to offer a direct premium to adulteration. A dairyman who buys good milk may safely add water till he has reduced it down to the lowest point at which it will pass. Morally he will be guilty; but legally he cannot be convicted, and on the large scale such adulteration would no doubt be profitable. Such a system, if generally adopted, would ensure our never having good milk.

The best way out of the difficulty, and that an imperfect one, would perhaps be to adopt a suggestion first made, we think, by Mr. PIESSE—namely, to fix by law a standard, low, but not too low, and to condemn all milk that fell below it, whether adulterated or not. Poorer milk could then, of course, be sold, but only if properly described. If we wanted richer milk we should have to take our chance; but very good milk is easily recognised, and it would still be to the interest of many tradesmen to sell it for a fair price.

For the present, the great thing would seem to be to get some kind of agreement between the public analysts and the Court of Appeal at Somerset House. Conflicting evidence in regard to matters of fact, when it occurs, is the worst, but conflicting evidence in regard to interpretation is scarcely less injurious to the public interests. At the present time the decisions of Mr. BELL and his colleagues are final. Whether their decisions are right or wrong, they must be accepted by magistrates, and it is therefore of especia moment that the grounds on which these decisions are built should be clearly stated and universally known. It is humiliating to an analyst of repute to find that the conclusions which he has drawn honestly and in accordance with the views of the Society to which he belongs, are discarded as inaccurate on appeal. He has no power of supporting his conclusions, and cannot be expected to conform to standards of which he may be supposed to be ignorant.

We by no means wish to imply that the Somerset House analysts show any disposition to make a mystery of their methods or their experience. On the contrary, they are

evidently anxious to explain everything, and have already done much in every way to justify the trust that was placed in them. But their conclusions have hitherto appeared only at trials, and, therefore, very incompletely. There is no certainty that their statements will be fully and accurately reported, and even when they are, they may, as in this last case, appear only in provincial newspapers, where the majority of public analysts will not see them. And we have yet to learn what their standards will be for tea, for bread, and for dozens of other articles.

It would surely be better for some official announcement on the subject of standards to be made with as little delay as possible, that public analysts may know what they have to expect. Individual analysts would then at least have the option of conforming to standards which must prevail, or of fighting stoutly for their own views.

Annotations.

"Ne quid nimis."

THE FELLOWSHIP EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE amended report of the Committee on the Regulations relating to the Education and Examination of Candidates for the diploma of Fellow of the Royal College of Surgeons of England, which was adopted on the 13th ult., is a great improvement on its predecessor, and is, on the whole, satisfactory. The recommendations of the Committee were briefly as follows: That, subject to certain regulations, any Member of the College be admissible to examination for the Fellowship; that there be separate and different examinations for Members of less than ten years' standing, and for Members of not less than ten years' standing; that each of the examinations be in two parts, named respectively the first and the second part of the examination; and that members of less than ten years' standing be entitled to be admitted to the first part of the examination at any time after receiving the diploma of Member, and to the second part of the examination at any time after having passed the first, on producing satisfactory evidence of having attained the age of twenty-five years, and of having been engaged not less than six years in the study (or study and practice) of their profession. For Members holding appointments in Her Majesty's service, who have passed the first part of the examination, a provision was proposed whereby, on a special vote of the Council, they shall be admissible to the second part of the examination at any time on producing satisfactory evidence of having been engaged not less than six years in the study (or study and practice) of their profession. It was further recommended that for Members of the College of less than ten years' standing the subjects of the first part of the examination should be Anatomy and Physiology and the Elements of Comparative Anatomy and Physiology, and that the subjects of the second part of the examination be Surgery, including Surgical Anatomy and Pathology; while for Members of not less than ten years' standing the subjects for the first part of the examination should be Surgical and Regional Anatomy, and for the second part of the examination, to which the candidates should be admissible at any time after passing the first part, Surgery and Practical Surgery, in place of Surgical Anatomy.

The Committee very wisely determined to retain the present regulations in regard to admission to the first part of the Professional Examination of candidates who, not being Members, shall pass the Preliminary Examination for the fellowship; so that students otherwise eligible still have the option of presenting themselves for the first part of the examination at the end of their third winter session. It is, however, recommended that in the Preliminary Examination such candidates shall be required to pass in all the compulsory subjects, and in not less than four optional subjects required for the membership of the College, and in addition to translate into English a passage from some Latin author not specially mentioned. By this arrangement Greek becomes an optional instead of a compulsory subject in the Preliminary Examination for the Fellowship as heretofore. While on the subject of Preliminary Examination, it might be incidentally remarked that the tone of the College of Surgeons' Preliminary Examinations would be considerably heightened and improved by an occasional change in the works specially prescribed for examination.

No alterations have been yet made respecting the *ad eundem* admissions, nor have any special regulations been recommended with reference to persons holding other qualifications than that of Member of the College.

As far as it can at present be judged, the report is, as we have previously said, a satisfactory one, and calculated not only to increase the number of Fellows of the College, and thus, by enlarging the constituency, to minimise the existing evils of canvassing and to improve the representative character of the Council, but also to enhance the cause of surgical education, and to revive the declining study of Anatomy, descriptive and surgical.

THE NURSING SYSTEM OF ST. BARTHOLOMEW'S HOSPITAL.

THERE have been various indications of the need of some changes in the system of nursing pursued at Bartholomew's. We are glad to find that the treasurer, Sir Sydney Waterlow, has earnestly taken the subject in hand, and has produced a series of suggestions on the subject which have met with the approval of the medical staff and of the governors. The essential features of this system are the establishment of a nurses' home in the close neighbourhood of the hospital; the institution of probationary nurses, and of "unattached probationers," who shall be available for emergencies, such as supplying the place of ward nurses and probationers absent through illness or upon leave, or acting as extra nurses, when such are required for special cases; the appointment of a superintendent or superintendents of night nurses, who shall, under the matron, have oversight of the night nurses, and whose business it shall be specially to visit the wards during the night, and see that the nurses are awake and doing their duty. Two or three probationary sisters are to be appointed, with a pay of £20 a year; but they are to receive no pay for the first six months unless they have been probationary nurses for that time. Arrangements are to be made for giving the probationary sisters and nurses regular instruction in the technical knowledge of nursing. The probationary nurses are to be instructed for twelve months. If they have done well, and can pass a proper examination, they are to receive a certificate of competency, and to be eligible for appointment as nurses, or at liberty to quit the hospital. Payments may be given them, but only as gratuities and as a recognition of good conduct to the amount of £10 in the year of probation. We shall watch the working of this scheme with great interest. It seems well adapted to secure both good nurses for the public and better nursing for the patients of Bartholomew's. It is estimated to cost nearly a thousand a year, but such an outlay for such a purpose is worthy of the hospital and of its most practical treasurer. Next to the provision for securing instruction to nurses—and, by the way, there

should be some test of the possession of fair rudimentary education and intelligence—that which pleases us most is the appointment of one or more superintendents of night nurses. When we consider that all febrile and suffering conditions are apt to be aggravated at night, it seems urgent that some special provision should be made for securing that nurses at night should be dutiful and efficient.

THE PLAGUE.

IN a communication recently read before the Epidemiological Society, from Surgeon-Major Colvill, attached to the British Residency, Bagdad, giving an account of a visit last year to the districts in Mesopotamia infected with plague, it was interesting to note how unchanged was the malady, in all its essential features, from the disease when it last existed in Western Europe. Hodges, who wrote his account of the plague from personal experience, immediately after the cessation of the great outbreak in London in 1665, states that the disease was ushered in by horror, vomiting, delirium, dizziness, and stupefaction, followed by fever, watching, palpitation of the heart, bleeding of the nose, and great heat about the precordia, during which were developed the signs peculiar to the disease—namely, the pustules which the common people called blains, buboes, carbuncles, spots, and the marks called tokens. Not all these symptoms were present in every case, but such combinations of them, particularly of the more characteristic, which, whatever the variety in individual cases, left no doubt as to the identity of the disease. In later outbreaks in Western Europe certain varieties in the above symptoms were observed, particularly in respect to hæmorrhage and to the forms of the eruptions. In some instances there was bloody vomit, in others blood was passed from the bladder, in others, again (as, indeed, noted by Hodges) bloody sweat. Then the number and varieties of the eruptions differed. Sometimes buboes predominated and carbuncles were rare, at others carbuncles were as frequent as buboes. Sometimes boils were very common, at others absent. Sometimes purpuric eruptions and petechiæ were especially marked. The "tokens" of English plague literature included several kinds of eruption, one kind especially being a small, hard, insensitive boil, rapidly mortifying at the base; another kind being apparently purpuric spots. The older accounts indicate that local conditions of living and the existence of a scorbutic condition in the patient affected much the nature and character of the eruptions. But in every outbreak there were the buboes and the carbuncles as the most characteristic of the signs of the disease.

A digest of the symptoms of plague, as observed in this country in the 17th century, and in Western Europe in the 18th, would serve for a description of the disease as manifested in its recent appearances. If we take the symptoms as observed in Mesopotamia last year by Mr. Colvill, we have as follows:—The person attacked first appears absent, and if away from home, say in the bazaar, he rushes away towards his house, speaking to no one, and entering his dwelling mechanically, so to speak, drops upon his bed as if in despair (the "horror" of Hodges), or as if wandering in his mind. Then fever sets in, and the patient becomes stupid, his eyes red and turbid, his looks those of a drunken man; or he is delirious, and if asked a question answers only by a groan. His tongue is swollen, generally blackish-brown, and fissured, sometimes white or yellow. There are invariably sordes about the teeth and gums, the thirst is intense, and in certain cases, if the patient be able to speak, he complains of pain in the epigastrium as if being stabbed with a knife. There is little vomiting, but occasionally the patient vomits blood towards the end. The breathing is hurried, and the pulse, during the stage of feverishness, very rapid. The urine, as a rule, is natural, often pale and abundant; but, as the case goes on, blood is often passed from the bladder. There is almost always obstinate constipation (as in the great plague of 1665 in London); and when diarrhœa occurs it is looked upon as a good sign. When the fever leaves, the patient bursts into a profuse perspiration and becomes sensible, though very weak.

At the time of the fever setting in, or oftener a few hours afterwards, there is intense pain in the groin, armpit, or neck, followed, and in some cases even preceded, by swelling of the lymphatic glands. No case occurred in which the swelling of the glands was absent. The glands of the groin were most frequently affected, next the glands of the armpit, the glands of the neck suffering more rarely. As a rule, the glands of one groin only were affected. Commonly several associated glands enlarged (not one only), one being much larger than the others—as large as a walnut or a pigeon's egg. Petechiæ occurred in fatal cases. Carbuncles were observed in 1874, but not in 1875, and were looked upon as a good sign. In fatal cases death occurred from the second to the seventh day. If a case survived the twelfth day it was considered to have escaped. The mortality during the first half of the outbreak was from 93 to 95 per cent. of those attacked. During the latter half of the outbreak the greater number of the attacked escaped.

The earliest cases of plague observed on the Euphrates in 1874 were almost all marked by black vomit, headache, fever, and swellings in the parotid, axillary, or inguinal regions, varying in colour from pale-red to black, and after death black spots (petechiæ) were observed on the skin.

THE ART OF ROWING.

WE cannot understand how the view has gained ground that rowing develops the legs more than the upper extremities. Mr. McLaren, in his book on Training, says: "Rowing gives employment to a large portion of the back, more to the loins and hips, and *most of all to the legs*; but it gives little to the forearms, and *least of all to the chest!*" For our own part, we cannot see how the muscles of the legs can be greatly exercised. In the old system they could only act between two points, both of which were motionless—the seat above, and the stretcher below, to which the foot was strapped down. Under these circumstances the legs were only rigid pillars, which, by pressing the foot immovably against the stretcher, formed a fulcrum by which the body was kept erect during the powerful action of the muscles of the trunk and glutei in the stroke. The principal muscles of the leg employed under the old system of immovable seats were the extensors of the thigh. Sliding seats have undoubtedly increased the leg-work in rowing, and called into action the flexor muscles of the thighs, which previously were little exercised in rowing. What extra degree of work is thus thrown on the legs we are not able to state, not having ourselves tried the sliding seat; but we are satisfied with the opinion expressed last week by our contemporary, *Land and Water*, who, speaking from abundant personal experience, says that the work with the legs is much more with the sliding seat than was the case with its old fixed predecessor. At the same time we are decidedly of opinion that even with sliding seats the legs are not proportionately more employed than the muscles of the upper extremities. The muscles chiefly concerned in rowing are, undoubtedly, the glutei and the muscles of the loin. Next to these those muscles of the thorax and trunk which find attachment to the upper part of the humerus—viz., the latissimus dorsi, the pectorales, and teres major, which all draw the arm towards

the chest, as in pulling an object towards the body; and then in importance comes, we think, the serratus magnus, which, by its action, draws the scapula forward, and thus gives additional reach to the arms. After these, we consider, since the introduction of sliding seats, the flexors of the thigh are most called into action; and lastly, the pronators and supinators of the forearm which are employed in executing the feather, and in the forward action of the hands in the recovery from the stroke. Thus it will be seen that all the important muscles of the body are called into play in rowing, the chief of which are those of the trunk and superior extremities. We believe that rowing with the legs, as we have often heard it termed, is equally as vicious as lugging with the arms; in both cases the extra exertion of the extremities is carried on at the expense of the proper rowing muscles. In our opinion, the action of the legs and arms ought to be subordinated to that of the trunk and chest.

WHITE-LEAD POISONING.

THIS subject has recently been attracting considerable attention. Not long since we noticed the death of a woman which occurred shortly after commencing employment at a white-lead factory, and we have frequently commented on the large number of persons suffering from lead poisoning admitted for treatment at the London Hospital, the Poplar and Stepney Sick Asylum, and the Poplar and Whitechapel Workhouses. In 1874, our Sanitary Commission visited several lead works in the North of England, in connexion with the inquiry into the influence of certain chemical manufactures on the health of operatives; their report was published in THE LANCET, vol. i., 1874, pp. 491, 742. We have now to notice the very interesting report made by Mr. Alexander Redgrave, Inspector of Factories, on the same subject, and which is to be found in the half-yearly volume of Reports of the Inspector of Factories. The conclusions he arrives at are similar to those expressed by our commissioners, and we heartily hope the following rules which he suggests may be made compulsory in all white-lead manufactories—viz., that "clothes, gloves, and caps should be provided to be worn only in the works; waterproof boots to be provided for those working with the moist white lead; respirators to be provided for those working with the dry white lead; none to be allowed to leave the works unwashed or in factory dress; and that the manufacturer should be empowered to make special rules which should render any of his workpeople amenable to law for disregarding them." To these recommendations we would add one other: that the manufacturer be also fined for any case of white-lead poisoning occurring on his establishment. We are quite convinced that if the protective measures above indicated were fully carried out, the workpeople would cease to suffer from the ill-effects of the lead. During the course of our inquiries we found men who have been working for years in factories, but who had never had a symptom referable to lead poisoning, although they had, at different times, been engaged in all the branches of the manufacture. These men we found always carried out the precautionary measures. On the other hand, the chief sufferers were the women, who were generally of a very low class, and of dissipated habits; very few, indeed none that we saw, seemed to take even the most ordinary precautions; the white lead was collected in masses under the nails of their fingers, whilst the hair and scalp was thoroughly engrained with it. At all the factories visited we found that there was a rule that none should leave the premises unwashed, and without changing the working dress, and that an overseer was appointed to see this rule carried out. But it was very evident that this duty was performed in a very perfunctory manner. In order to insist on the precautionary measures being more effectually carried out, it will be necessary to make the manufacturer legally responsible for the health of his workpeople, and to make him subject to some penalty whenever an illness, preventable by ordinary precautions, arises from the prosecution of any trade carried on on his premises.

THE ARTISANS' DWELLINGS ACT.

WE drew attention last week to the improvement scheme which had been submitted to the Government by the local authorities of Whitechapel. It is our pleasing duty this week to record that similar steps have been taken by the Board of Works for the Holborn district, which contemplates the clearing of 86,587 superficial feet on the east side of the Gray's Inn-road, occupied by a population of 1611 persons. The net cost of the undertaking is estimated (after due allowance for various recoupments), at £45,000. This scheme, if sanctioned, will clear away a nest of the foulest and unhealthiest courts in London; and although in its present form it is neither so large nor so sweeping in its scope as was originally intended, we must nevertheless be thankful for even this half measure, and there can be little doubt that the District Board will not shrink from undertaking additional work should the present proposition be sanctioned, and prove a success.

It is gratifying to note that these improvements, like those contemplated in Whitechapel, are due to the report of the medical officers of the board, Dr. S. Gibbon and Mr. T. Robinson; and it is satisfactory as indicating increased enlightenment on the part of our local governors, that although the propositions put forward by their scientific advisers entail considerable cost, they have nevertheless been well received.

The kind of evidence adduced at the inquiry before Mr. Cubit Nichol was exactly of the same description as that offered on behalf of the Whitechapel scheme. Medical officers, Catholic priests, surveyors, engineers and financiers, were examined in each case, and the evidence in the two cases differed only in the numbers which were submitted for the consideration of the commissioner.

WOUNDS OF THE HEART.

A REMARKABLE case of prolonged survival after a severe wound of the heart has lately occurred at Lowestoft, under the care of Mr. W. H. Clubbe, of that town. The following facts, given in evidence before the coroner, we glean from the local paper, the *Mercury*. It seems that a man named Ellis had some cause of disagreement with his stepfather, named Boast. On Sunday, April 9th, Ellis attacked Boast on the beach at Lowestoft, and stabbed him in the chest close to the left breast. After the receipt of the wound, the deceased walked about fifteen yards into a neighbour's house, and did not die until the following Wednesday morning (April 12th), having survived his wound sixty-four hours. The following extract from Mr. Clubbe's evidence gives a most accurate and concise account of the post-mortem appearance:—

"The wound I have referred to was two inches above and a little to the right of the left nipple. Externally it measured half an inch in the direction of the long axis of the body. This wound penetrated the walls of the chest between the third and fourth ribs. It passed through the pericardium and substance of the heart into the cavity of the left ventricle of the heart. The left cavity of the chest was filled with blood, so that the left lung was compressed into a small compass towards the spine. The right lung was expanded, the heart itself was empty, but there was some blood in the pericardium. The liver and kidneys contained very little blood, and were both diseased. There

was a quantity of blood found in the soft structures of the walls of the chest, particularly in the neighbourhood of the wound. Death arose from internal hæmorrhage, resulting from the wound I have described."

The most urgent symptom presented by the deceased during life was dyspnœa, but even this was only observable after the first 24 hours. The physical signs were dulness over the heart and left lung and absence of respiratory murmur, but over the right lung there was marked puerile breathing. The absence of faintness was very noteworthy, and the pulse was tolerably good to the last, but the effort of sitting up in bed to take food seems to have determined the fatal syncope. The jury returned a verdict of "Wilful murder" against Ellis, which, indeed, was the only course open to them.

A case of a similar kind occurred a short time since at University College Hospital, in which a man had committed suicide by firing two shots into his body, the first lodging in the chest and the second in the head. The post-mortem examination revealed the fact that the first bullet had penetrated the pericardium, and had actually grooved the surface of the left ventricle. Notwithstanding the serious wound of his heart, the deceased had been able, after its infliction, to re-load his pistol (a single-barreled Deringer) and inflict the wound in the head which proved fatal to him.

THE OBSTETRICAL SOCIETY'S CONVERSAZIONE.

THE Conversazione, which will be held on Wednesday next at the Royal College of Physicians, promises to be a very brilliant affair. We understand that a large and valuable collection of instruments will be lent for the occasion by various gentlemen. Also, that there will be an interesting collection of medical portraits and of other objects of art, many of them being rare and beautiful. From the invitations that have been accepted it is expected that the gathering will be both brilliant and numerous, a great number of the most distinguished members of the profession from all parts of the kingdom having already intimated their intention to be present.

PUBLIC MORTUARIES FOR BIRMINGHAM.

ALTHOUGH we were unable to concur with the Birmingham Council in their choice last summer of Dr. Birt Davies's successor to the office of Coroner, we are not the less disposed to give Mr. Hawkes our meed of approbation when we find him using the influence of his office for the public good, and we have not been unobservant of the new coroner's persistent efforts to establish reforms in connexion with his court, or of his persevering endeavours to stimulate his old colleagues of the Council to erect mortuaries in the borough—an independent mode of action which seems to have greatly exercised the temper of the worthy corporators.

Amongst the facts which the Coroner has brought to bear in support of his application, instances have been submitted in which the bodies deposited by the police have been exposed to exceptional indignities. Thus, a respectable married woman who had been drowned in the canal was "viewed," to use the coroner's words, as follows:—"They had that day to walk down a gullet saturated with mud and filth until they came to a broken gateway round which was a crowd of persons—boys and children—standing, from mere curiosity, to get a glimpse of the deceased. It was not until the crowd had been driven away that the jury were able to pass, and on entering the dilapidated outhouse they found the object of their inquiry lying on the ground. That was the provision which was sanctioned by the authorities." In another case, that of a labourer, who lodged at a greengrocer's, the jury found the body bestowed in the front shop, concealed under a stall on which the provisions on sale were arranged; and at the inquest these facts transpired:—The Coroner: "We have seen the body lying in your shop under a stall." Witness: "Yes, where I keep my potatoes." The Coroner: "That is the only place where you could keep him?" Witness: "Yes, I have three more lodgers." The Coroner: "Are the meals taken in this room?" Witness: "I have no other place than that." Again, in a letter to the Mayor, read some time back to the Town Council, Mr. Hawkes observes: "From time to time I attend with my jury to view the remains of deceased persons lying in outhouses attached to taverns, and the police deposit them there. We generally find a corpse lying on the ground (partially covered with old sacks and rags) exposed to the gaze of curious frequenters of the premises and to the ravages of rats and other vermin."

We are glad to notice that the Coroner returns to the charge this week, and that another letter from him, conveying the sentiments of his jury on this state of things, comes before the Town Council at its next meeting. We shall continue to watch their proceedings, and shall not consider their neglect of an obvious and urgent sanitary reform, involving, besides, the observance of ordinary decency, condoned by their pursuit of a scheme of street improvement, however costly and metropolitan it may be.

UNWISE PUBLICITY.

ANY remarks on the extraordinary case *sub judice*, in which murder or conspiring to compass death is alleged, would, of course, be ill-timed and reprehensible; but we cannot refrain from a passing censure of the restless way in which pseudo-medical suggestions are placed before the public. It is quite within the range of possibility that some weak-minded person or persons without the wit to detect the gross absurdity of statements—remarkable chiefly for their grotesque ignorance—contained in certain letters which have been printed in evidence, may be induced to practise the supreme folly indicated. Whether this contingency actually occurs is unimportant to the point to which we call attention, namely, the inexpediency—we had almost said, the lawlessness—of this custom of publishing anything and everything that appears in court as "evidence." The procedure evinces a strange disregard of public safety. Apparently it is not recognised that the suggestions to which we allude are at fault in almost every particular, and, had they been carried into effect, would have entailed the utter discomfiture of the miscreant who adopted them. We are not concerned to warn wrong-doers of the pitfalls that lie in their paths, nor to point out the traps knowingly or in ignorance set for them; but we think the question of reckless publication of criminal proceedings is one of exceeding gravity, and the case or cases now pending should attract the attention of those who can move in the matter to some effectual purpose.

ORIGIN OF UREA IN THE BODY.

IN a recent paper on this subject (*Centralblatt*, No. 53, 1875), Dr. Salkowski observes that the principal facts at present known bearing on this point are that certain amido-acids, after their ingestion into the alimentary canal, appear in the urine in the form of uramid-acids or combinations of amido-acids with the group CONH. 2. Certain other amido-acids, such as glycocoll, leucin, asparaginic acids, which are products of the disintegration of albumen, when administered with the food, lead to augmented excretion of urea. 3. After the ingestion of sal ammoniac, the greater part of the nitrogen appears as urea in the urine. 4. In

the course of the oxidation of glycocoll, leucin, &c., in an alkaline solution outside the body, carbaminic acid is formed, the salts of which are found in the blood. On repeating and extending the researches that led to the above conclusions, he has satisfied himself that at some stage of the disintegration of nitrogenous substances cyanic acid (or carbaminic acid) is formed in the body; secondly, that both glycocoll and sarcosin cause considerable increase in the amount of urea excreted, without producing more than a small increase of the amount of disintegration of the albumen; and, thirdly, he agrees with Drechsel in thinking that albumen ingested as food breaks up into leucin, tyrosin, &c.; these undergo oxidation, and form carbaminate of soda, which splits up, perhaps under the influence of a ferment, into urea and carbonate of soda.

NETLEY SCHOOL.

THE rumours as to the abolition of the Army Medical School, which were not without some foundation, have been completely dissipated by the terms of the new Warrant. It will be seen that the successful candidates for the British medical service are to go through the Netley course as of yore, and the army, as well as the candidates themselves, may be congratulated that it is so. We cannot believe that it could ever have been seriously intended to abolish this school, and we are confident that the profession generally will cordially endorse the wisdom of Mr. Hardy's decision in this matter.

THE fifty-fifth annual report of the Seamen's Hospital, Greenwich, is now issued. We observe that no sort of *medical* return is incorporated into the general report, an omission which detracts considerably from its value and interest. During the past year 2209 in-patients and 1685 out-patients were under treatment in the hospital, which, it appears, is now able to accommodate 300 inmates. As is generally known, sick seamen of every nation are immediately received without the necessity of having to seek recommendatory letters. The Committee of Governors desire to draw public attention to the fact that since patients were removed from the old *Dreadnought* to the building on shore very few sums have been bequeathed to the Society, and they fear that this diminution in such an important source of revenue is due to an impression that the hospital is now wholly or partially supported by Government. They therefore desire to state that no money is received from such a quarter towards the annual income, but that the Committee are mainly dependent on voluntary contributions. We trust this explanation will be effectual in securing increased support for a most deserving institution.

WE seldom hear of an attempt to forcibly hinder the medical officer of health in the performance of his duty, although, doubtless, the inclination to place obstacles in his way is often present. A case which recently occurred at Portsmouth, in which a misguided man endeavoured to defeat the law, deserves publicity. A butcher was charged at the police-court with unlawfully obstructing and impeding Dr. Turner, Medical Officer of Health for Portsmouth, while carrying into execution the provisions of the Public Health Act. It appeared that Dr. Turner directed the Inspector of Nuisances to seize several pieces of liver which were exposed in the shop, and which he considered to be flukey. The defendant thereupon brandished a chopper and threatened to strike either of the officers who touched the meat. The latter made a strategic movement to the rear, and without delay obtained a summons. After the hearing of the case the defendant was fined £5, and directed to tender an apology to Dr. Turner.

WE are glad to find that the spirited conduct of Drs. Barnes, Farre, and Priestley, in connexion with recent events at the College of Surgeons, is applauded generally by our provincial brethren. At the last quarterly meeting of the Bradford Medico-Ethical Society, held on the 28th ult., the following resolution was unanimously carried:—"That the best thanks of this Society be given to Dr. Barnes, Dr. Farre, and Dr. Priestley for their manly determination in resigning their seats at the Board of Examiners for the licence in Midwifery at the Royal College of Surgeons, rather than take any part in admitting to the Medical Register persons who are not also legally qualified in medicine or surgery."

THE appointment of Dr. V. S. Gouldsbury, army surgeon, now serving in the Gold Coast Colony, to the order of St. Michael and St. George is announced. Dr. Gouldsbury, who is intimately acquainted with that part of Africa and with the native tribes, rendered the Government good service during the Ashantee Campaign. If we remember aright, he was attached to Sir John Glover's hazardous expedition. He has since repeatedly visited Coomassie, in the neighbourhood of which capital he is supposed to be at the present moment. His intrepidity, administrative talent, and thorough knowledge of the African character and languages combine to make him one of the most useful men on the Coast.

EARL BEAUCHAMP announced in the House of Lords last week that a Royal Commission will be appointed to inquire into the working and management of works and manufactories for smelting, burning, or converting ores or minerals by which sulphurous acid, sulphuretted hydrogen, and ammoniacal and other gases are given off, to ascertain the effect produced thereby on animal and vegetable life, and to report on the means to be adopted for the prevention of injury thereto arising from the exhalations of such acids and gases, and upon the legislative measures required for this purpose. The Commission cannot commence its labours too soon, in view of the outcry raised in some parts of the country.

A LARGE number of ladies and gentlemen were present at the opening of Mr. John Gamgee's real ice rink at Chelsea, on Saturday last. We have already given a full description of this very successful undertaking, but since then Mr. Gamgee has superseded his other process by the use of sulphurous acid, the cold produced by this cheaper agent being imparted to a circulating solution of glycerine and water. In an address to his visitors, Mr. Gamgee stated he was prepared to lay down a sheet of real ice ten square miles in extent! Mr. Gamgee has certainly more than matched nature's ice with his own.

CONSIDERATION of the question of the purification of the Thames has again been deferred. In answer to Sir C. Dilke in the House of Commons, who inquired whether, during the present session, any measure would be introduced which would prevent towns from pouring their sewage into the river above the point at which the supply of water to London for drinking purposes is drawn, Mr. Sclater-Booth said there was no intention of dealing specifically with the subject this session, although it was in contemplation to re-introduce the Pollution of Rivers Bill.

AT a recent meeting of the Senate of the University of London, J. Cooper Forster, M.B., and John Curnow, M.D., were elected Examiners in Surgery and Anatomy respectively, vice Professors Marshall and Ellis, whose term of office have expired.

THE design for the proposed new hospital at Wakefield has, we understand, been fixed upon by the committee, the estimated cost of carrying out of which is £10,092. The subscriptions in hand or promised towards the purchase of the land and the cost of the building have already reached the sum of £14,000, and the work is, it is stated, to be commenced at an early date.

AT a special general meeting of the British Medical Association, held at Birmingham under the presidency of Dr. Falconer, of Bath, it was decided that the annual meeting should this year be held in Sheffield.

WE regret to learn that Mr. John Rust, surgeon, while driving last Saturday in the neighbourhood of Clare, Suffolk, was killed by lightning. The horse was killed by the same stroke.

OUR correspondent in Rome informs us that the Pope is now in excellent health and spirits.

REPORT
OF
The Lancet Commission
ON
LUNATIC ASYLUMS.

BETHLEM AND ST. LUKE'S HOSPITALS.

THESE are correctly described as curative establishments for the insane, and, therefore, in a special way bespeak the interest of the profession. They are both charities, and exercise a certain discretionary power in the selection of cases. They are situated in London: one in the heart of the metropolis, the other close on the outskirts of a populous district. Each claims to be considered a clinical school of psychological physic, and certificates from the medical staff at either hospital are received by the University of London for the purposes of graduation in medicine. Both, also, afford accommodation for resident clinical students. Beyond these general points of resemblance, the two metropolitan hospitals for lunatics present little in common. Bethlem is rich; St. Luke's is poor, with the poverty that paralyses action. The older institution, so famous in the annals of "restraint," occupies a splendid and ample site, and needs nothing but a judiciously progressive administration of its ample funds to render it the most complete and efficient, as it is the most ancient, curative establishment for mental disease in the country. Meanwhile, St. Luke's is badly, although conveniently, located; burdened with a heavy rental; compelled to live from hand to mouth, selling its scanty stock, or even borrowing money, to meet current expenditure; and doing useful and necessary work under conditions discreditable to the liberality of this wealthy capital. Neither of these charities exists for the relief of the Poor's-rates, a circumstance that should on no account be lost sight of. It is their especial mission to relieve the sufferings of those a little above the level of pauperism. It would be difficult to exaggerate the importance of this service. Poor clerks, poor tradesmen, and persons in embarrassed or reduced circumstances generally, are the proper recipients of such aid as Bethlem and St. Luke's are ready to afford. It is strange that the social value of this enterprise does not command the support it deserves. Bethlem is in comparatively easy circumstances only because it happens to be endowed, while St. Luke's is starved and crippled in its work in a fashion that reflects dishonour on the philanthropy of our great City firms and the wealthy classes of the metropolis. The state of matters is so humiliating that we cannot believe it can be adequately understood by the public. Surely some measure to wipe away the reproach should be devised, and the feat can scarcely be difficult. We are not indisposed to think that a hospital for the insane, where some portion of the expenses might be defrayed by patients or their friends, would be of use in London, but it is little short of a scandal that the Committee of St. Luke's should be compelled to take in, and keep, chronic cases, for which some payment is made, in order to eke out an insufficient income! By all means let a wise system of self-support be applied to our public institutions, under proper restrictions; meanwhile it is not only inexpedient, but unfair, to mingle the objects of pure charity with inmates who, to some extent, pay for their maintenance, in the same hospital. However wisely and carefully a charity may be administered under such circumstances, it must inevitably be hampered, and, as we believe, fail in its ultimate appeal to the public and in financial success. Bethlem and St. Luke's, we have said, both select their cases. The former is in a position to do this unfettered: St. Luke's cannot, from lack of funds, exercise a free choice. Accordingly many beds at the last-named hospital are occupied by cases neither requiring, nor likely to be benefited by, curative treatment. This is much to be regretted. Patients are admitted in the first instance for twelve months. If, at the expiration of this period, there appears good ground for hope that longer residence will effect a cure—or in certain instances on other accounts—a patient may be retained upon the recommendation of the resident physician. But, speaking generally, these hospitals are exclusively for the treatment of acute cases which may be expected to recover, or pass into the chronic stage rendering their removal to an ordinary asylum expedient, within the year. There is unhappily more than enough work of this especial kind to be done in London, and it is to be deprecated that the only two curative hospitals, properly so-called, for lunatics, should be diverted, even in part, from their immediate legitimate purpose.

There is little to be said in commendation of either Bethlem or St. Luke's regarded from the constructional point of view. They are both singularly ill-adapted for the residence of large bodies of patients, whatever their malady; and it is only because the vast building on the Surrey side of the Thames contains less than three hundred patients, and the hospital in Old-street-road under two hundred, that the sanitary conditions do not call for censure. Everything, probably, that ingenuity could suggest or liberality permit has been done at Bethlem to render the interior comfortable and the surroundings attractive. The site is so good, and the situation so admirably suited for an institution of this character, that we can only hope in process of time the existing building will be replaced, at least to a considerable extent, if not throughout, by more commodious premises. The case of St. Luke's is scarcely parallel. The wards are better than the exterior would lead a casual observer to anticipate; but the building is so blocked in by the surrounding houses, and the area so limited—notwithstanding the recent addition of a disused burying-ground as an airing court,—that it is impossible to avoid the impression that sooner or later the charity must cease to *rent* its present site, and remove to some equally central but more appropriate locality. A careful inspection of both establishments, the details of which need not be described, enables us to report that little is wanting at either hospital beyond resolute perseverance in the improvements already in progress. The purely sanitary arrangements at St. Luke's are not apparently quite equal to the need, and no time should be lost in refitting closets and ward scalleries. The water-supply is ample, and the attendance seems good, but the fittings are not of a class to render through cleanliness easy or perhaps even practicable. The condition of the patients, their surroundings, the provisions for their domestic comfort and entertainment seem adequate. A more liberal embellishment of the wards at St. Luke's would be desirable, but in this, as in other respects, the lack of money cripples praiseworthy effort. The proportion of attendants to patients is satisfactory, and the servants generally are somewhat above the average of such officials at county asylums. This is particularly obvious in the case of Bethlem. Much liberty is accorded to the inmates at both institutions. They enjoy especial facilities for out-door exercise, and Bethlem has an establishment at Witley to

which the convalescent and quiet patients are sent during the summer months. This is a great boon and a most valuable adjunct to the treatment. Carriage drives, visits to their friends under proper surveillance, and many other devices for the pleasure and profit of the patients are humanely provided. The general appearance of the inmates is indicative of comfort and content. The routine of daily discipline is considerate, and adapted to the social requirements of the class from which the inmates are chiefly derived.

But it is to the medical aspect of the two hospitals that we most desire to direct attention. Taking the year 1875 as a fair standard of the work done and the results obtained, we may reproduce the following particulars:—On the 1st of January, 1876, 263 cases remained under treatment in Bethlem Hospital, 99 males and 164 females. Of the male cases, 74 were classed as "curable" and 25 as "incurable"—that is to say, looking upon the institution as a "curative establishment for the insane," as the resident physician describes it, 25·25 per cent. of the space intended for males was unsuitably occupied. Turning to the female side, we find 134 cases classed as "curable" and 30 as "incurable," giving a percentage of 18·29 of curative force diverted from its proper object, and expended on patients whose malady was deemed incurable. It is reassuring to notice that the anomaly of this state of matters appears to be recognised. The new cases admitted in 1875 were 231 in number, and of these only two were known to be "incurable." Nevertheless, at the close of 1875, there were 55 incurable cases left in the hospital: 11 had been under treatment thirty years, 16, twenty years; 9, fifteen years; and 19, ten years! The net result is that 20·91 per cent. of space and power is not available for curative work. Even recognising, as we do, the necessity of retaining a certain proportion of quiet and tractable cases to facilitate the control of more turbulent inmates, it is impossible not to feel that the percentage of loss is too large. An institution like Bethlem has not the excuse of need for "quiet" cases to eke out a scanty attendance. The paid officers are sufficiently numerous, and, as we have said, of a class superior in point of efficiency. At St. Luke's the conditions are, unfortunately, far worse. On the first day of the present year, the total number of patients being 205, not less than 135 were chronic or incurable! Thus, only 34·14 per cent. of the whole establishment is applied to its legitimate purposes as a "curative" hospital: that is considerably less than the average proportion available at an ordinary county asylum. The admissions at St. Luke's during the year 1875 numbered 102: 33 males and 69 females. Of these, 87—28 male and 59 female—were curable, and 15—5 male and 10 female—chronic cases. This looks as though there were a real desire to select cases which are likely to receive benefit, but other considerations, probably, as we have hinted, mainly financial, pull the other way. The practical consequence is that the hospital has become, in great part, a private *asylum* for the classes a few removes from pauperism. How greatly this is to be deplored must be self-evident. Looking to the statistical tables of the two institutions, we find the following broad results:—At Bethlem the percentage of cures upon curable cases, for a hundred years, as stated in the reports, is 45·68 per cent. The same calculation for the year 1875 gives 29·07 per cent. On the 1st of January, 1875, there remained 249 cases, of which 194 were "curable." During 1875, 231 patients were admitted, of whom 229 were believed to suffer from curable maladies. This gives a total of 423 curable cases under treatment, of which 123 were discharged cured in the course of the year 1875, or 29·07 per cent. The percentage on total of "curable" admissions of the year, 123 cures on 229 curable cases, is 53·71. At St. Luke's, the percentage of cures upon curable cases we collect as follows:—Cases on the books on the 1st of January, 1875, 183, of which 64 were curable. During the year 1875, 102 patients were admitted, of whom 87 were believed to be suffering from curable affections. This gives the total of "cases under treatment deemed curable," 151. The "cures or recoveries" of the year 1875 numbered 43, which shows a percentage of 28·47. The same calculation upon the admissions of the year 1875—that is, upon the curable cases only—makes 49·42. The comparison of the two hospitals is thus:—Percentage of cures upon the total number of curable cases under treatment, at Bethlem, 29·07; at St. Luke's, 28·47; and upon the number of curable cases admitted during the year, Bethlem, 53·71; St. Luke's, 49·42. The difference is not in either respect important. The percentage of deaths on average number resident is as follows: at Bethlem, 22 upon 265, or 8·30 per cent.; at St. Luke's, 11 upon 184, or 5·97 per cent. No great weight can be attributed to the statistics of a single year, but as our immediate purpose is simply to indicate the *present* work of these hospitals, and the year 1875 seems to have been a fair average period, the computations given will suffice. Epilepsy and general paralysis are professedly excluded from these curative hospitals, but cases of both diseases find their way into the admissions, and, of course, sensibly affect the "results" of treatment. The same is true of tubercular phthisis, and whether or not that disease has any great causative relation to insanity, its presence exercises a serious influence on the probability of cures among any considerable body of lunatics. The happily progressive, though apparently retrogressive, conviction that "mental disease" so-called, is, in fact, in the main an arbitrary severance of nervous and mental symptoms from physical maladies, and has no separate existence other than may be attributed to functional derangements in general, will gain new strength by the study of lunacy statistics properly interpreted. The seemingly inextricable confusion of figures, and heaping together of worthless and, in large part, misunderstood facts, which characterise the greater proportion of the published returns, may be, to a considerable extent, dissipated by collating and correcting them with the more intelligible and trustworthy statistics of ordinary physical disease. No inconsiderable proportion of the "curable" cases collected in a hospital for the insane will succumb to the common maladies upon which probably the mental phenomena of their cases depend. We shall have something more to say on this topic hereafter, but it is important to note in passing that of the 22 deaths at Bethlem in 1875, 20 were classed as "curable" cases. In 10 instances general paralysis was the "cause of death." One was a case of cancer, another of phthisis, and a third was caused by suicide. Of the 11 deaths at St. Luke's in the same year, two were cases of general paralysis, two pulmonary consumption; one was caused by meningitis, another by rheumatic fever, and a third by peritonitis. Of course it is to be expected that physical maladies will prove as fatal to insane patients as to the ordinary subjects of disease, but it is necessary to watch the cause of death at asylums somewhat closely, and, in the long run, we believe this line of inquiry will be found to throw considerable light on the causation of the maladies now too commonly classed as purely mental.

The system of treatment at Bethlem and St. Luke's—especially the first-named hospital, as being generally better provided in point of scientific appliances—is eminently direct and rational. The two institutions enjoy especial advantages and opportunities for personal observation dependent on their limited numbers. It is scarcely fair, or even possible, to discuss the treatment at St. Luke's in this stage of its history. There has been an important change in the management during the last year and a half, and as yet the earnest endeavours of the present resident physician are directed principally to carrying out such improvements and arrangements in the house as the very scanty means at his disposal will permit. A careful inspection of the enterprise in progress has left a strong persuasion that by steady perseverance St. Luke's will win its way to the front rank as a school of mental medicine. For the present, however, any opinion we might form would be tentative, and it is impossible to avoid the greatest anxiety as to matter of finance. We strongly urge upon the Committee of this hospital a prompt and exhaustive consideration of its resources and the policy to which their scanty nature manifestly impels the directorate. Something should be done to place the hospital on a better permanent footing. The cause is a good one. The means of extended usefulness are at hand. What is done may be done better, and a wider sphere of social service may be occupied, if only the conditions are such as to admit of a more judicious and free selection of hopeful cases, and to provide ampler facilities for cure. The Committee are happy in their choice of a resident medical superintendent; it only remains to place at his disposal the fullest opportunities and the most approved

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and recent means for investigation and remedy. Restraint is scarcely known at these hospitals, the exception being a very occasional use of gloves or straps for the hands at night. Seclusion is practised moderately, and chiefly for the protection of disturbed sleepers. It is to be regretted that it is ever left within the discretion of attendants. One great difficulty with which the resident physicians have to contend is that of inducing patients of the class so largely represented at these institutions to work. When we remember how important a part occupation must always play in the treatment of mental maladies, the magnitude of this trouble will appear. Great skill seems to be displayed in overcoming this obstacle to improvement, but it is very serious, and must not be disregarded. A generous dietary is provided, and, in so far as insanity is a disease of debility, this is satisfactory; but it increases the need of adequate and suitable bodily exercise, to promote nutrition and obviate the consequences of proportionate excess. The returns of patients employed show a resolute attempt to grapple with the difficulty, and, looking to the conditions of the case, there is little cause of complaint. It is manifest, from the whole tenor of the practice at Bethlem, that the value of measures tending to rouse lethargic patients to activity and to ward off the peril of drifting into a mere vegetative existence, so marked in some and imminent in all varieties of mental disorder, is clearly recognised.

We come now to a phase of the subject with which it would be most desirable to deal at length and in detail, but the materials are not at our disposal. Classing these two institutions as hospitals, it is natural to expect that they will present features giving them a claim to be considered centres of scientific light, learning, and professional usefulness. Bethlem, indeed, offers many proofs of industry and success in this department. The practice is painstaking, and includes the skilled use of all known appliances. The researches in pathology are commensurate with, perhaps somewhat in advance of, the progress in therapeutics. In clinical industry and acumen the hospital will hold its own with any curative establishment for ordinary disease in the country. Nevertheless there is something wanting. It is not enough in the present state of mental medicine to work well—in a corner. For the sake of the profession at large, and in the interests of that more general and practical acquaintance with the remote and reflex causes of disease which is so rapidly breaking down the partition walls of all specialties—what is done should be done openly. We do not mean to imply that there is any intentional avoidance of publicity at Bethlem. On the contrary, the most liberal arrangements are made by the resident physician for the clinical teaching of his own class from St. Thomas's Hospital, and that of the assistant-physician from Guy's. Moreover, we believe the practice is, within proper limits, open to the observation of qualified practitioners. But there is a lack of positive endeavour to place the important facts gleaned and the discoveries made within reach of the profession as a whole. Bound up with the reports, "printed for the use of the governors," of the years 1873 and 1874, for the information of these, generally speaking, lay readers, we find most valuable "appendices" summarising the results of observations and experiences during the previous years. The report for 1875 is not so enriched. We trust the omission may be prompted by the discovery that this peculiar mode of disseminating knowledge of priceless value to the profession, but mischievous rather than useful to the lay public, was not well aimed. We also venture to hope the discontinuance may be preliminary to some more direct method of giving those primarily interested the full benefit of the great work in progress at this hospital. We can have no hesitation in describing the pursuit of a rational study of mental derangement, recognised as an outline of physical disease, by the epithet *great*, but there are strong reasons to believe that the work doing at Bethlem is of a nature to claim more than common respect from all students of medicine. The appendices to which we have alluded place this beyond question. An appreciation of the conditions which give clinical reports a sterling value, a keen sense of the need of accuracy, and a wholesome dread of premature generalising, "jumping to conclusions" on insufficient data or by hasty inferences, are happily apparent in every page. Such topics as the relations of physical to mental disease—including not only the issue of particular cases but the phenomena of reflex insanity and the general causation of madness; the extent to which habits of drunkenness may be the cause or the consequence of progressive mental maladies; the characteristic effects of drugs, too many of which are vaunted as specifics; and the value and expediency of particular modes of treatment, with the conditions under which they should be employed or discarded, can only be studied in the wards of a hospital for mental disease: and they require for their discussion, to any useful purpose, the experience, the ripe judgment, and the patient skill of men versed in the practice of clinical observation and pathological research, provided with every necessary facility, and ready to devote their lives to an engrossing and highly responsible labour. These conditions are satisfied at Bethlem. It is on this account that we cannot refrain from blaming the apathy or oversight to which the profession owes the hiding of so much light under a bushel, particularly at a conjuncture when the need of enlightenment is felt and deplored. We trust the resident physician at Bethlem will take these remonstrances in the spirit by which they are inspired, and devise some means by which the evil, for such it is, may be speedily remedied. It is not within the scope of our present purpose to discuss the practice at these hospitals in detail. We can only state generally the impressions which our inquiries have produced. If the clinical results attained are placed within reach of the profession they will be found of priceless value, and if the reproach which attaches to the circumstance that one of the most interesting and useful departments of medical science is veiled in needless obscurity is removed, a prominent purpose of this Commission will be fulfilled, and the profession at large be sensibly benefited. We repeat, Bethlem, as a place of residence for the insane, is a very poor and unsatisfactory specimen of what such an institution ought to be. In a certain sense, the fact that it has not, long ago, been rebuilt *on the same site* is discreditable to the enterprise of a comparatively rich corporation. As a hospital for the insane, it alone, of all the institutions in or near London, satisfies the obvious requirements. It is in excellent hands, and the only cause of complaint is that what is done is not done, in a professional sense, openly. We are indebted to Dr. Rhys Williams, the resident physician, and to Dr. Savage, at Bethlem, and to Dr. Mickley, at St. Luke's, for much painstaking and courtesy during this inquiry.

With this brief notice of the two hospitals we conclude the series of visits to *public* institutions for the counties of Middlesex and Surrey, together with the City of London. In our next paper we shall proceed to offer such general reflections on the principal topics suggested as the inquiry, so far as we have carried it, may seem to justify or demand.

ROYAL WARRANT.—ARMY MEDICAL DEPARTMENT.

VICTORIA R.

Whereas we deem it expedient to alter the terms and conditions of service in the Medical Department of our Army;

Our will and pleasure is that the pay, relative rank, allowances, retirement, and service of all officers who shall join the Medical Department of our Army on and after the date of our present Warrant shall be governed by the following rules.

1. The ranks and rates of pay of the officers of the Army Medical Department shall be as follows:—

	Daily. £ s. d.	Charge Pay.
Surgeon-General	2 0 0	The Principal Medical Officer of an Army in the Field consisting of 10,000 men and upwards, £1 daily; of 5000 men and upwards, 15s daily; of less than 5000, 10s. daily.
After 25 years' service	2 5 0	
„ 30 „	2 7 0	
„ 35 „	2 10 0	
Deputy Surgeon-General	1 10 0	
After 25 years' service	1 12 0	
„ 30 „	1 15 0	
„ 35 „	1 17 0	
Surgeon-Major, on appointment ...	1 0 0	Or the Principal Medical Officer of a Colony where the number of commissioned officers and enlisted men is 1500 and upwards, 8s. daily.
After 5 years' service as such	1 5 0	
Surgeon, on appointment ...	£250 a year.	
	Daily.	
After 10 years' service	0 17 6	

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2. The pay of officers shall be issued monthly in arrear.

3. The relative rank of the officers of the Army Medical Department shall be as follows:—(a) A Surgeon-General shall rank as Major General, according to the date of his commission. (b) A Deputy Surgeon-General shall rank as Colonel, according to the date of his commission. (c) A Surgeon-Major shall rank as Major, according to the date of his commission; after twenty years' full-pay service as Surgeon and Surgeon-Major, he shall rank as Lieutenant-Colonel, but junior of the latter rank. (d) A Surgeon shall rank as Lieutenant, according to the date of his commission; and, after six years' full-pay service as Captain, according to the date of the completion of such service.

4. The relative rank of these officers shall regulate choice of quarters, rates of lodging-money, servants, fuel and light, or allowances in their stead, detention and prize-money, as well as allowances granted on account of wounds or injuries received in action, and pensions and allowances to widows and families.

5. Forage shall be granted to officers of the Army Medical Department for such number of horses as are necessarily kept by them for duty.

6. Admission to the Army Medical Department shall be by public competition.

7. Every candidate for appointment to the Army Medical Department shall possess two diplomas or licences, one to practise medicine and the other surgery in Great Britain or Ireland, and be registered under the Medical Act in force at the time of his appointment.

8. A successful candidate, who, having passed through a course of instruction at the Army Medical School at Netley, in military medicine, surgery, hygiene, and pathology, shall have proved, after examination, that he possesses a competent knowledge of those subjects, shall receive a commission as surgeon for a limited period of ten years' service on full pay. From the date of joining at Netley and up to that of passing his final examination, a candidate shall receive 5s. a day.

9. On the completion of ten years' commissioned service, unless the surgeon be specially selected for further employment in the Medical Department of our Army, or, if he be unwilling to continue to serve therein, his services shall be dispensed with, and he shall be entitled to receive in lieu of all pension or retirement, pension for wounds excepted, the sum of one thousand pounds.

10. A surgeon of less than ten years' service, disqualified for duty by ill-health, certified by a board of medical officers to have been contracted in and by the service, may, at the discretion of our Secretary of State for War, be granted half-pay at a rate not exceeding 8s. a day if he have served five years or more, or 6s. a day if he have served less than five years, for a period not exceeding six months at one time.

11. At the expiration of that period of six months, if the surgeon be able to resume his duties, he shall be entitled to complete his term of ten years' service. If he be unable to resume duty, as certified by a board of medical officers, he shall be allowed, if he have not served five years, a further period of six months, without half-pay; at the expiration of which period, if still unable to resume duty, his services shall be dispensed with.

12. If the surgeon have served five years on full-pay, and be unable to resume duty as certified by a board of medical officers, his services shall be dispensed with, and he shall be entitled to receive, in lieu of all further pension or pay, pensions for wounds excepted, a gratuity at one of the following rates, viz.:—

If he shall have completed	9	years'	full-pay	service ...	£800
" "	8	"	"	...	700
" "	7	"	"	...	600
" "	6	"	"	...	500
" "	5	"	"	...	400

13. If a surgeon be unable to complete his ten years' service from any cause other than wounds or ill-health, certified by a board of medical officers to have been caused in and by the service, or reduction of establishment, he shall be allowed not more than six months' leave without pay, after which, if unable to resume duty, his services shall be at once dispensed with, and he shall have no further claim on the department.

14. If the services of an officer be temporarily dispensed with in consequence of a reduction of establishment, he shall be granted the rates of half-pay fixed by Article 10 until there be an opportunity of re-employing him, or, if he have served five years, he may retire from the service with a gratuity according to the rates specified in Article 12.

15. Every year it shall be competent for our Commander-in-Chief, on the recommendation of the Director-General of the Army Medical Department, to select, with the approval of our Secretary of State, a number of surgeons not exceeding six, who shall be retained in the service, and shall be promoted after twelve years' service on full-pay to the rank of Surgeon-Major.

16. All promotion from the rank of Surgeon-Major to that of Deputy Surgeon-General, and from the rank of Deputy Surgeon-General to that of Surgeon-General, shall be given for ability and merit upon the selection of our Commander-in-Chief, with the approval of our Secretary of State; and the grounds of such selection shall be stated to us in writing, and recorded in the department. In all such cases the amount of foreign service shall be expressly stated.

17. A medical officer retiring after full-pay service of twenty-five years and upwards, may, if recommended for the same by the head of his department, receive a step of honorary rank, but without any consequent increase of half-pay.

18. Good-service pensions shall be awarded to the most meritorious officers of the Army Medical Department, under such regulations as shall be from time to time determined by us, with the advice of our Secretary of State.

19. Six of the most meritorious officers of the Army Medical Department shall be named our Honorary Physicians, and six our Honorary Surgeons.

20. Medical officers shall have a right to retire on half-pay after twenty years' service. Medical officers of the rank of Surgeon-Major or Surgeon shall be placed on the retired list at the age of fifty-five, and all Surgeons-General and Deputy Surgeons-General at the age of sixty years.

21. Our Secretary of State may, when he shall deem it fit, employ Medical Officers on the half-pay list in special situations at such rates of pay, in addition to half-pay, as he shall from time to time determine; but such officers shall vacate their appointments on attaining the age of sixty-five years.

22. A medical officer who, having voluntarily resigned his commission, has subsequently been permitted to re-enter the department, shall not, except under very special circumstances, to be approved by our Secretary of State, be allowed to reckon his former service.

Service on the West Coast of Africa.

23. Service of medical officers upon the West Coast of Africa shall be voluntary.

24. Each year or portion of a year shall be allowed to reckon double towards retirement or towards the gratuities fixed by Articles 9 and 12, but not towards increased pay, provided that the officer shall serve at least twelve months on the West Coast of Africa.

25. For each year's service on the Coast, a medical officer shall be entitled to a year's leave at home, and for every additional period beyond a year he shall have an equivalent extension of leave.

26. Officers who may volunteer for service on the West Coast of Africa shall receive double pay while actually serving on the Coast.

Non-effective Pay.

27. A medical officer of more than ten years' service placed on half-pay by reduction of establishment, or on the report of a medical board in consequence of wounds or ill health caused in and by the discharge of his duties, or on account of age (under Article 20), shall be entitled to half-pay in accordance with the following scale:—

	Daily.
Surgeon-General, after 30 years' service	£1 17 6
" " 25 "	1 13 6
" " 20 "	1 10 0
Deputy Surgeon-General, after 30 years' service ...	1 5 6
" " " 25 " ...	1 2 6
" " " 20 " ...	1 1 0
Surgeon-Major, after 25 years' service	1 0 0
" " 20 "	0 16 6
" " 16 "	0 13 6
" " 13 "	0 11 0
Surgeon, after 10 years' service	0 10 0

28. The rate of half-pay awarded to officers retiring for their own convenience, after 20 years' service on full-pay, under Article 20, shall not exceed one-half of their full-pay at the time of retirement.

29. Every medical officer who shall retire after a service upon full-pay of twenty-five years, shall be granted a rate of half-pay equal to seven-tenths of the daily pay he may have been in receipt of when thus retiring on half-pay, provided he shall have served three years in his rank, or shall have served abroad for ten years in all ranks, or for five years with an army in the field. An officer of twenty-five years' full-pay service, whose service falls within neither of these conditions, shall be entitled to only seven-tenths of the daily pay he was in receipt of prior to his last promotion.

30. A medical officer of twenty years' full-pay service, placed temporarily on half-pay on account of ill health, may, however, be allowed to retire on permanent half-pay, at the rates fixed by Article 27, if after one year on half-pay he shall be reported by a medical board to be permanently unfit for further service.

31. In all matters not specially provided for in our present Warrant, the officers of the Medical Department of our Army shall be subject to the General Regulations for the Departments of our Army.

It is our further will and pleasure that the rules established by our Warrant of the 1st March, 1873 (as amended by our Warrant of the 23rd October of the same year), Article 19 of our Warrant of the 18th February, 1874, and by Warrant of 29th September, 1874, shall continue to be applicable to all officers now in the Medical Department of our Army; but that Articles 4, 11, 12, 14, 15, 16, and 20, of our said Warrant of the 1st March, 1873, shall be cancelled and the following Articles shall be substituted in lieu thereof:—

4. (*a*) A Surgeon-General shall rank as Major-General, according to the date of his commission. (*b*) A Deputy Surgeon-General shall rank as Colonel, according to the date of his commission. (*c*) A Surgeon-Major shall rank as Major, according to the date of his commission; after 20 years' full-pay service as Surgeon and Surgeon-Major, he shall rank as Lieutenant-Colonel, but junior of the latter rank. (*d*) A Surgeon shall rank as Lieutenant, according to the date of his commission; and after six years' full-pay service as Captain, according to the date of the completion of such service.

12. A Surgeon shall be promoted to the rank of Surgeon-Major on completing twelve years' full-pay service in our Army, if he be recommended by the Director-General of the Army Medical Department.

16. All promotion from the rank of Surgeon-Major to that of Deputy Surgeon-General, and from the rank of Deputy Surgeon-General to that of Surgeon-General, shall be given for ability and merit upon the selection of our Commander-in-Chief, with the approval of our Secretary of State; and the grounds of such selection shall be stated to us in writing, and recorded in the Department. In all such cases the amount of foreign service shall be expressly stated.

20. Medical officers shall have a right to retire on half-pay after twenty years' service. Medical officers of the rank of Surgeon-Major or Surgeon shall be placed on the retired list at the age of 55, and all Surgeons-General and Deputy Surgeons General at the age of 60 years.

We do further direct that when any officer now serving shall, under Article 20 of our Warrant of the 1st March, 1873, as revised by our present Warrant, be compelled to retire at the age of 60, he shall have added to his retired pay, as fixed by our said Warrant, such annual sum as our Secretary of State shall consider to be a just compensation for any net loss he may have incurred from the substitution of 60 for 65 as the age for retirement.

Until our further pleasure shall be made known, nothing contained in our present Warrant shall be held to change the existing system of promotion of the medical officers of our regiments of household troops.

Given at our Court at Windsor, this 28th day of April, 1876, in the 39th year of our reign.

By Her Majesty's command,

GATHORNE HARDY.

ABSTRACT OF THE

REPORT OF THE BOARD OF MEDICAL STUDIES TO THE UNIVERSITY SYNDICATE, CAMBRIDGE.

THE Chairman of the Board of Medical Studies has informed the Vice-Chancellor that the Board have had under consideration the communication dated Oct. 12th, 1875, of the Syndicate appointed to consider the requirements of the University in different departments of study. With respect to the first inquiry of the Syndicate, whether the "Board consider that any additional teaching is needed to instruct students in the subjects of the University examinations supervised by it, and generally to further the advancement of the studies of (this) department, and studies cognate to them,"—the Board are of opinion that additional teaching is needed which would require the appointment of—(1) A teacher of Pathological Anatomy, whose chief duties would be to demonstrate, and to have charge of the Museum of Morbid Anatomy. (2) A professor or teacher of Surgery. (3) A professor or teacher of Midwifery, and Diseases peculiar to Women. (4) A professor or teacher of Medical Jurisprudence. (5) A professor or teacher of Sanitary Science (6) Instruction in Mental Diseases, to be given during one term in the year. (7) A demonstrator of Practical Pharmacy may at some future time be required.

Lectures on Pathological Anatomy are given by the Linacre Lecturer; but he is not appointed by the University, and his stipend is so small that he cannot reasonably be expected to devote to his subject all the time and labour which its high importance demands; the Board therefore are of opinion that the greatest present need is a proper provision for the teaching of Pathological Anatomy. The Board would draw the attention of the Syndicate to the fact that in the very important subject of Physiology (8) the arrangements for teaching are anomalous. Some part of the instruction is given by the Professors of Anatomy, some in certain colleges; but the greater part is given by the Trinity Prælector in rooms provided by the University. The Board are of opinion that the chief representative of so important a subject should have the title and status of a Professor of the University, and be appointed by and responsible to the University at large. The Board are of opinion that such a professor should be precluded from the professional practice of medicine, and that he should be aided by one or more demonstrators. The Board are also of opinion (9), having regard to the great extent of the subjects of Comparative Anatomy and Zoology, that there should be a professor in each department. The Board recommend moreover (10) that a Pathological Laboratory be established; (11) that a Museum of Materia Medica be formed; (12) And that additional accommodation be provided in dissecting rooms and work rooms for Human Anatomy. The remainder of the report deals with relations to subsist between the University, the Colleges, and the students with respect to the professors, lecturers, and teachers.

Correspondence.

"Audi alteram partem."

DENTAL ANÆSTHETICS AND HEART DISEASE.

To the Editor of THE LANCET.

SIR,—I have read Dr. Barney Yeo's letter on dental anæsthetics in relation to heart disease with much interest, and feel that he has mooted a question of the greatest importance to the profession and to the public alike. I am convinced that many dangers attendant upon the use of anæsthetics are often overlooked simply because immediate death is not the result of their administration. Considerable experience in the production of anæsthesia by nitrous oxide gas and the consideration of its action convince me that in many cases its use is attended with more or less risk, this risk not being sufficiently realised, inasmuch as the

mischief wrought is subsequent to, not, apparently, coincident with, the inhalation of the gas. Dr. Yeo asks "whether the existence of great obstruction to the circulation in the form of valvular disease of the heart counter-indicates the use of anæsthetics?" and if so "whether nitrous oxide is an exception to the rule?" To these queries I would answer that in all cases of heart disease the greatest caution should be exercised, though I do not think that valvular mischief is that condition in which its administration would be attended with the greatest hazard, nor would the mere absence of a murmur by any means necessarily be a proof of safety in its use. The explanation of the phenomena attendant upon the exhibition of nitrous oxide seems to indicate that the conditions of heart which would render anæsthesia by its means the most dangerous are those in which it is the subject of fatty degeneration, or those in which its structure is flabby, and its coats relaxed. In cases of death from this agent the right auricle and right ventricle are much distended with blood, and there seems to be every reason for accepting Dr. George Johnson's explanation of its action—viz., that there is, first of all, obstruction of the systemic, followed by a greater obstruction of the pulmonary, circulation, and subsequent engorgement and dilatation of the right side of the heart.

Some recent experiments made with Dr. G. Johnson upon rabbits have convinced me of the truth of this theory, and, indeed, the phenomena exhibited in a person under the influence of the oxide support it quite as fully—firstly, the pulse is firm and tense; secondly, the pulse becomes imperceptible, and lividity simultaneously occurs.

Without entering into details, it may be briefly said that all symptoms may be explained by extreme contraction of the minute pulmonary arteries, with resulting over-fulness and distension of the right cavities and comparative emptiness of the left, the supply of blood and oxygen to the tissues being greatly diminished. In short, we have all the stages of asphyxia rapidly developed as a result of imperfect oxygenation of the blood.

Assuming these explanations to be correct, it is clear how much danger might attend the frequent administration of the gas in cases like those which I have characterised. About the distension of the right heart there is no doubt, and such a strain upon its parietes when enfeebled would alone be sufficient to accelerate disease, whilst death might be caused by paralysis of that viscus. I have seen one case in which there was intermittence of the heart's action for three weeks after anæsthesia induced by this agent, beyond which there was no sign of disease, the symptoms entirely passing off within the period mentioned.

Other conditions, such as hypertrophied tonsils, short necks in plethoric people, should all be considered in using nitrous oxide gas, especially where there is reason to suspect cardiac mischief. Finally, I believe it offers many advantages when used for short operations, provided that it be administered with caution and skill; but I fully agree with Dr. Yeo that "no unqualified person should be permitted to make use of anæsthetic agents," whilst I would warn those who do so of the consequences they would incur should any fatal accident arise—if a sense of their moral responsibility be insufficient to deter them from using agents empirically which may be dangerous in the present, but still more so in the future. Medical men could prevent many of the dangers to which Dr. Yeo has alluded by warning their patients of the risk they run in receiving anæsthetics at the hands of those not qualified to administer them. He alludes with satisfaction to the new "Association of Surgeons Practising Dental Surgery." I trust that it may do much to elevate the status of oral surgery, not only by improving education, but by making all take a higher estimate of the legitimate scope of that specialty.

I am, Sir, your obedient servant,

S. HAMILTON CARTWRIGHT.

Old Burlington-street, May 1st.

To the Editor of THE LANCET.

SIR,—If you will kindly afford me a small space in your valuable journal, to answer some of the questions asked by Dr. Burney Yeo in your last number, I will endeavour to be as brief as possible. I think it is now allowed by the profession in general that, in those cases in which a capital operation is necessary, the shock to the patient is likely to be attended with more risk than attends the administration of an anæsthetic; hence, for my part, I should not decline to anæsthetise a patient suffering from any organic disease whatever. With reference to the special case mentioned by Dr. Burney Yeo, in which there was great obstruction to the circulation, in the form of valvular disease of the heart, I believe all will allow that any agent which increases that obstruction in itself, or adds to it, by taking away the power of the muscular force of the heart to overcome the obstruction, must have a deleterious effect; and therefore, in this case, the anæsthetist would do well to avoid using either chloroform or bichloride of methylene, which tend to depress the heart, and select nitrous oxide or ether, which add to the force of the heart's action and stimulate it.

It is well known that the emotion of fear may in itself be fatal in cases, without any cardiac mischief, and therefore, in answer to the second part of the first question, I would say,—before you proceed to the administration of any anæsthetic, endeavour to get the confidence of your patient, and let him feel that he can trust you, then put him *thoroughly and completely* under the influence of the anæsthetic. I believe there would be some risk if the patient were only partly anæsthetised, for then the system would be cognisant of the unfelt pain of the operation, muscular rigidity take place as a reflex action, and thus, acting by pressure on the bloodvessels, causing greater obstruction to blood circulation, might produce a fatal result.

In almost all the patients who have given me a history of having been nervous and hysterical after some previous administration of the nitrous oxide, I have almost invariably found either that they have been pondering over and dreading the operation for some days, and passing sleepless nights, or that just as they have been recovering sensation, one or two teeth have been extracted, and although on awakening they will not remember anything about the operation, yet the unrecognised pain has produced a most intensely vivid and painful dream, the effects of which may have been persistent for days.

I have often given gas to patients in whom a loud cardiac bruit was present, and I have never known any ill consequences follow when the plan I have advocated above has been adopted. At the present time I regard nitrous oxide and ether as by far the safest anæsthetics in use; but I unhesitatingly say that, at some future time, if the practice of allowing them to be given by unqualified and incompetent persons continues, fatal results must be expected.

Having answered that portion of the letter which relates to the anæsthetic part of the question, I leave the remainder to be replied to by those dentists who are in the habit of attempting to do two things well at the same time—viz., administering the anæsthetic and extracting the teeth.

Believe me, faithfully yours,

WOODHOUSE BRAINE, F.R.C.S.,
Anæsthetist to Charing-cross Hospital and the Dental Hospital of London.

Maddox-street, Hanover-square, May 2nd.

PROVINCIAL REPRESENTATION ON THE COUNCIL OF THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—Do allow me the opportunity of reminding the provincial Fellows that we have lost a very able representative in the Council of the Royal College of Surgeons by the death of Mr. Southam of Manchester, and which creates a vacancy which must be filled up at the annual meeting in July. It is some years since I laboured hard and long in conjunction with some other Fellows to obtain a fair representation of the provincial surgeons at the Council of the College; and we have so far succeeded as to have had for the last few years three provincial Fellows on the Council. I am not yet satisfied and do not consider that we have a just proportion. Out of the 24 members of Council we ought at least to have five sent from the provinces. The number of provincial Fellows far exceeds the metropolitan. And it is our own fault if we do not at the next election place on the Council the number we think we are justly entitled to. We must clearly make an effort, and suffer some inconvenience and expense, to enable us to fill up the vacancy

occasioned by Mr. Southam's death. This, as a matter of course, we must do, and at the same time we shall be enabled to record our votes in favour of *three* provincial candidates instead of *one*, and thus place on the Council *five* members from the provinces, as we have already Mr. Humphry of Cambridge, and Mr. Baker of Birmingham.

I hear Mr. Wheelhouse of Leeds is willing to be nominated, and doubtless Mr. Hussey of Oxford will again allow us to bring him forward; these, together with Mr. Robert William Coe, Lecturer on Surgery and Surgeon to the Bristol General Hospital, would be an excellent trio to run for the honourable position of member of the Council of the Royal College of Surgeons of England. At this moment I am unaware of the names of the members who retire by rotation; I cannot therefore be accused of having any personal feeling in the matter, but am actuated solely by a feeling of right and justice towards that large and influential body, the provincial Fellows. Trusting that you will, with your usual liberal and powerful aid, help us to obtain a just acknowledgment of rights,

I remain yours respectfully,

Spalding, May 2nd, 1876. EDWIN MORRIS, M.D., F.R.C.S.

ON THE TREATMENT OF SEVERE SPRAINS.

To the Editor of THE LANCET.

SIR,—Whilst perfectly agreeing with Mr. Sampson Gamgee in his estimate of the value of treatment of severe sprains by "compression and perfect immobilisation," as taught by him in 1871, I beg to state that nearly twenty years ago my friend Mr. Peter Hood recommended a similar method of treatment. I was induced at the time, first by reading his pamphlet, and secondly by conversation with Mr. Hood, to try the plan; it has answered my expectations admirably, and I have ever felt grateful to its author. I feel sure Mr. Gamgee has not met with Mr. Hood's paper, otherwise he would have alluded to it.—I am, Sir, yours, &c.,

Wimpole-street. HENRY SMITH.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentleman was admitted a Fellow on April 27th, 1876:—

Charles, Thomas Edmonston, M.D. Edin., Calcutta.

The following gentlemen were admitted Members on the same day:—

Bennett, Alexander Hughes, M.D. Edin., St. George's-terrace.
Oliver, George, M.D. Lond., Harrogate.
Park, William, M.D. St. And., Endsleigh-street.
Sangster, Alfred, M.B. Camb., Guy's Hospital.
Skerritt, Edward Markham, M.D. Lond., Clifton.
Smith, Richard Thomas, M.D. Lond., Haverstock-hill.
Sturge, William Allen, M.D. Lond., National Hospital, Queen-square.

The following gentlemen were admitted Licentiates on the same day:—

Bott, Henry, St. Bartholomew's Hospital.
Buckell, Ernest Hook, Harrington-street.
Burton, Herbert Campbell, Lee-park-lodge.
Don, Arthur Gorbutt, Porten-road.
Fowler, James Kingston, King's College Hospital.
Henley, Edward Whishaw, Belgrave Hospital, Winchester-street.
Horner, Arthur Claypon, St. Bartholomew's Hospital.
Hutton, Edwin Rutherford, Lever-street.
Llewellyn, Rees Ralph, Whitechapel-road.
Makins, George Henry, Bethlem Hospital.
Newman, John Jepson, Guy's Hospital.
Pearse, Joshua Sydney, University Hospital.
Pratt, William Thomas Cassel, Newport, Monmouthshire.
Rogers, Thomas King, Southgate-road.
Shadwell, St. Clair Brockway, Walthamstow.
Shann, Frederick, Halsey-street.
Sloman, Herbert, Farnham.
Smyth, Spencer Thomas, Tyson-road.
Swanwick, Eustace Maclean, Greenheys, Manchester.
Walker, Horace, Tavistock-street, Bedford-square.
Watson, Percival Humble, Sanderland.
Williams, Philip Henry, Royal Infirmary, Windsor.
Winckworth, Charles Edward, South-end-road.
Winship, William Lionel, Newcastle-on-Tyne.

The following candidates, having passed in Medicine and Midwifery, will receive the College Licence on obtaining a qualification in Surgery recognised by this College:—

Batchelor, Henry Thomas, Bancroft-road.
Buckell, Leonard Martin, Holford-square.
Collier, Herbert, Bohemia House, Turnham-green.
Makuna, Manikji Dosabhai, Ladbroke-road.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners, on Monday and Tuesday last:—

E. N. Drought, E. Bush, C. A. Payne, J. R. Hewett, J. B. Colenso, H. E. Giffard, A. Flint, G. J. Ward, A. P. Hart, C. J. Morgan, J. M. Campbell, and E. C. Bousfield, St. Bartholomew's Hospital; C. Wood, R. W. White, W. D. Hartley, J. R. Harris, R. J. Bryden, A. G. Wells, O. Griffith, A. B. Hammond, J. Davies, E. Penny, and M. F. Cock, Guy's Hospital; H. E. R. James, Charing-cross Hospital; F. A. Cox and W. G. McLennan, St. Mary's Hospital; C. H. Schön, W. E. Good, J. M. Briggs, C. M. Maxwell, W. S. Tuke, and W. Francis, University College; J. Greasley and H. L. P. Hardy, London Hospital; W. F. H. Von Beverhoult, L. H. Fuller, H. J. R. Moberly, S. Hyde, and A. Teevan, King's College; H. B. Leatham and G. A. Herschell, St. Thomas's Hospital; E. T. Smith, St. George's Hospital; J. Brock, Guy's and St. Thomas's Hospitals; and J. Fulford, Melbourne and University College.

Of the 148 candidates examined during the last and present week 63 failed to satisfy the Board of Examiners, and were referred for three months' further anatomical and physiological study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on April 27th:—

Boys, Arthur Henry, Brixton-hill.
Crowther, William Harding, Ealing.
Greenwood, Arthur, Chipping Norton.
Livesey, Ernest William, Duke-street, Portman-square.
Lloyd, David, Newcastle Emlyn.
Moore, Charles Arthur, Thetford, Norfolk.
Palmer, Francis Craddock, Weston-super-Mare.
Potts, Lawrence, The Avenue, Beckenham.
Rigby, William Bradshaw, Sutton, near St. Helens.

The following gentlemen passed the Primary Professional Examination on the same day:—

Joseph Herbert Earle, George Hales Parry, Guy's Hospital; Edward James Lawless, London Hospital; Thomas Hope Lewis, St. Bartholomew's Hospital; George Scott Robertson, Charles Aitken Stacpoole, Westminster Hospital.

At the Preliminary Examination in Arts held at the Hall on April 28th and 29th, 62 candidates presented themselves, of whom 21 were rejected, and the following 41 passed and received certificates of proficiency in General Education:—

In the First Class in order of merit: Howard Bendall, Thomas F. Fullard, John Alfred Gray, Thomas Underwood Gray, Frank Octavius Hodson, and Peter Pigott, equal; John Octavius Slippen, Charles Cooper, Ben Hall, and Archibald T. G. Heath, equal.—In the Second Class, in alphabetical order: R. M. E. Atthill, G. R. Beardmore, H. J. Blakesley, M. G. Clark, E. Cotterell, H. M. Dancy, C. S. Deavets, F. Epps, F. J. Golding, Hugh St. David Griffiths, F. Hewkley, H. Hodgson, L. G. R. Holmes, B. M. Hughes, J. C. R. Husband, A. H. Jackson, T. B. Jacobson, W. Knott, S. R. Lidiard, J. H. Macadam, T. E. Nöding, J. G. O'Neill, C. R. Owen, F. F. Penno, H. S. Robinson, H. G. Shore, J. Tucker, T. K. Whitehead, A. J. Williams, John Williams, and L. W. Wilson.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following have been appointed Examiners for the ensuing year:—Examiners for Letters Testimonial and Fellowship: John Barker, Henry Gray Croly, Henry J. Gogarty, Edward S. O'Grady, William O'Leary, Benjamin Wills Richardson, Edward A. Stoker, William Thomson. Examiners in Midwifery: Henry Croly, John R. Kirkpatrick, William Roe. Examiners in General Education; Frank Davys, Michael J. Malone, Robert Morton.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting of the Society was held at 53, Berners-street, on Friday, April 28th. Dr. Quain, one of the treasurers, was in the chair. From the statement read by the secretary it appeared that the income available for the payment of grants and expenses for the year 1875 had been £3213 5s, showing an increase of £147 10s. on that of 1874. The expenditure had been £2939 2s.—a decrease of £135, chiefly owing to the small number of applicants for fresh grants during the year. The total amount of grants had been £2711 10s., including a donation of £253 at Christmas distributed among the widows and orphans. The expenses had been £227 12s. The funded property had been increased by the purchase of £1541 6s. 2d. Metropolitan 3½ per cent. Consolidated Stock. Legacies of the value of £1440 had been received. Mr. C. J. F. Lord was elected a vice-president, and the following gentlemen directors:—Mr. Birkett, Dr. Carr, Mr. Steet, Dr. James, Dr. E. Pollock, Dr. Wilks, and Mr. Savory. A vote of thanks to the editors of the medical journals was carried unanimously, and the proceedings terminated by a vote of thanks to the chairman.

VACCINATION GRANTS.—The Local Government Board have awarded Mr. Edw. Hier Evans £56 17s. (second grant); Mr. Richard Lougher, £24; and Mr. J. Evans, £30 1s., for efficient vaccination in the districts of the Cardiff Union.

SEWAGE OF TOWNS.—A conference on the Health and Sewage of Towns is to be held by the Society of Arts on Tuesday and Wednesday next, under the presidency of Mr. Stansfeld, M.P. The object of the conference is to discuss existing information in connexion with the results of the systems already adopted in various localities; to elicit further information thereon; and gather and publish, for the benefit of the public generally, the experience gained. The introduction and discussion of untried schemes will, therefore, not be permitted. Special papers, which have been prepared at the request of the Council of the Society, will be printed and circulated at the conference. After the conference the Society will issue a report on its results, and on the several returns and documents which have been prepared. The conference will meet each day at 11 A.M., 2 P.M., and, if necessary, 8 P.M.

PRESENTATIONS.—Dr. C. C. Gibbes, who has been filling the post of house surgeon to the South Devon and East Cornwall Hospital for the past two years and a half, has been presented with a very handsome dining-room clock, bearing the following inscription:—"Presented to C. C. Gibbes, Esq., M.D., by the students, matron, nurses, and servants of the South Devon and East Cornwall Hospital, as a token of esteem, on his leaving Plymouth."—Mr. King, late of Welwyn, has been presented with a handsome inkstand, bearing the following inscription:—"Presented to Henry Kirwan King, M.B., C.M., on his leaving Welwyn, by the members of the Literary and Social Club, in token of their esteem and appreciation of his services as chief founder and first president."—The following resolution was passed at the annual meeting of the Governors of the Lincoln Lunatic Hospital. "That this Board expresses its regret at the resignation by Mr. Walsh of the office of Medical Superintendent after nearly thirty years' service in this hospital, as well as its grateful sense of the kind and able manner in which he performed the duties of his office during that lengthened period; and begs (in pursuance of notice duly given on February 12th last, by the Lord Monson, the Very Rev. the Dean, Dr. O'Neill, Mr. Broadbent, Mr. Simpson, and Mr. Foster) his acceptance of a gratuity of £60 in acknowledgment of the same, the amount being more in proportion to the means at the Board's disposal than to its estimation of the character of Mr. Walsh."

Medical Appointments.

BAYLY, G. S., has been appointed a Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton, vice Wilkins, whose appointment has expired.

BEVERLEY, W. H., has been appointed an Assistant Resident Medical Officer to the General Infirmary, Leeds, vice Taylor, resigned.

BOOTH, C., M.D., M.R.C.S., has been appointed Honorary Consulting Surgeon of the Chesterfield and North Derbyshire Hospital, on resigning as Honorary Surgeon.

BRIDGES, R., M.B., M.R.C.P.L., has been appointed a Physician to the Great Northern Hospital, vice Hardinge, deceased.

BURTONSHAW, T., M.R.C.S.E., L.S.A.L., has been appointed Second Assistant Medical Officer to the Essex Lunatic Asylum, Brentwood, vice Powell, appointed First Assistant Medical Officer of the Kent Lunatic Asylum, Barming-heath.

BUTLER, F. W., M.R.C.S.E. & L.S.A., has been appointed Surgeon to the Hearts of Oak Benefit Society at Brighton; also to the Dolphin Lodge, London Unity of Odd Fellows.

CLARKE, J. ST. THOS., M.B., M.R.C.S. &c., has been appointed Honorary Surgeon to the Institution for the Blind, Leicester, vice Fullagar, deceased.

COATHUPE, E., M.R.C.S.E. & L.S.A.L., has been appointed Chief Constable of the City and County of Bristol.

DOWN, J. L. H., M.D., F.R.C.P.L., has been appointed Honorary Physician to the Kingston Provident Dispensary, vice Mason, deceased.

FOX, E. A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed a Physician-in-Ordinary to the Warrington Infirmary and Dispensary.

GARLICK, G., M.B., M.R.C.S.E., has been appointed a Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton, vice Brown, whose appointment has expired.

GROVE, W. R., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Somersham District of the St. Ives Union, Hunts, and Medical Officer of Health for the Somersham Sub-District of the St. Ives Rural Sanitary District, vice Deane, deceased.

HARMAR, J. R., M.R.C.S.E., L.S.A.L., has been appointed a Resident Surgeon to the Birmingham General Dispensary, vice Andrew, appointed House-Surgeon to the South Devon and East Cornwall Hospital.

HARTLEY, J. F., M.A., M.B., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Harrogate District of the Knaresborough Union, vice Trousdale, deceased.

HOLMES, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for No. 3 District of the City of Limerick Dispensary District, Limerick Union, vice Kavanagh, resigned.

IRVING, J., M.B., has been appointed Medical Officer for the Huddersfield South District of the Huddersfield Union, vice Cameron, resigned.

MACDONALD, T. R., L.R.C.S.Ed., has been appointed Resident Medical Officer to the Edinburgh Royal Hospital for Sick Children, vice Stewart, resigned.

MACDOUGALD, G. D., has been appointed Public Analyst for Dundee. £100 per annum, and fees for analyses per scale.

MCGRATH, T. J., L.R.C.S.I., L.K.Q.C.P.I., has been appointed a Honorary Medical Officer to the South Dispensary, Liverpool, vice Campbell, resigned.

MUSKELLY, W. J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed House-Surgeon to the Stanley Hospital, Liverpool, vice Morriss, resigned.

OULTON, H. W., A.B., M.D., has been appointed Medical Officer for District No. 3 of the Bradford-on-Avon Union, vice Adye, resigned; and Medical Officer of Health for the above town, vice Barter, deceased.

SANGSTER, J. K., has been appointed an Assistant Resident Medical Officer to the General Infirmary, Leeds, vice Metcalfe, resigned.

SPARK, J. S., L.F.P.S.G., has been appointed Medical Officer and Vaccinator for the Port of Monteith, Perthshire, vice Marshall, deceased.

SPINKS, C. N., M.R.C.S.E., L.S.A.L., has been appointed a Surgeon-in-Ordinary to the Warrington Infirmary and Dispensary, vice White, appointed Consulting Surgeon.

STOKES, W. T., M.D., L.K.Q.C.P.I., F.R.C.S.I., has been appointed Professor of Practical Anatomy at the Royal College of Surgeons in Ireland, vice Morgan, deceased; and Visiting Surgeon to the St. Patrick (Swift's) Hospital for Lunatics, vice Hamilton, deceased.

TURNELL, A. P., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Dover Hospital and Dispensary, vice Dobbie.

WILLIAMSON, Dr., F.R.S., has been appointed Chief Gas Examiner for the Metropolis, vice Letheby, deceased.

WILSON, G., M.D., has been appointed Examiner in Hygiene and the Laws of Health at the Birmingham and Midland Institute, vice Parkes, deceased.

Births, Marriages, and Deaths.

BIRTHS.

ASHBY.—On the 27th ult., at Vine House, Grantham, the wife of Alfred Ashby, M.B., F.R.C.S., of a son.

BOYCE.—On the 30th ult., at Stillorgan, the wife of J. W. Boyce, M.B., of twin daughters.

GRIFFITH.—On the 28th ult., the wife of Samuel Griffith, M.D., Portmadoc, Carnarvonshire, North Wales, of a son.

MOIR.—On the 24th ult., at King-street, Aberdeen, the wife of F. F. M. Moir, M.B., of a daughter, still-born.

STOCKER.—On the 30th ult., at Peckham House, Peckham, the wife of Alonzo H. Stocker, M.D., of a son.

MARRIAGES.

SMITH—DAWSON.—On the 27th ult., at St. James's, Great Grimsby, James Edward Smith, M.D., to Anne Eliza, daughter of Edward Dawson, Esq.

WALKER—ATKINSON.—On the 26th ult., at the Rotherham Church, by the Rev. A. W. Hamilton, M.A., Mus. Bac., Vicar of Stanton-in-the-Peak, assisted by the Rev. J. W. Taylor, M.A., Rector of Statherne, uncle of the bride, Bernard Walker, M.R.C.S.E., to Mary Abigail, eldest daughter of J. G. Atkinson, M.D., The Grange, near Rotherham.

DEATHS.

ARTHUR.—On the 2nd inst., at Commercial-road East, John Arthur, Esq., L.R.C.P.Ed. & F.R.C.S.E., in his 71st year.

DAVIS.—On the 28th March, at Coimbatore, Madras Presidency, Annie Margaret, the beloved wife of Surgeon-Major William Farquhar Davis, Acting Zilla Surgeon.

GREEN.—On the 26th ult., at Highgate, Kendal, Thomas Green, M.B., M.R.C.S.E., L.S.A., and L.M., in his 55th year.

MASON.—On the 27th ult., at Sunnyside, Ayr, Dr. James Mason, formerly of St. Anne's, Montreal, aged 81.

RUST.—On the 28th ult., Henry Rust, M.R.C.S., of Wethersfield, Essex, aged 59. Friends will please accept this intimation.

WOOD.—On the 6th ult., on board the Royal Mail steamship *Elbe*, on the passage from Brazil, John Cronyn Wood, L.A.H.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. Roberts: Handbook of the Theory and Practice of Medicine.
Johnson's London and the Vanity of Human Wishes.
Dr. Meadows: Manual of Midwifery.
Dr. Lankester: Practical Physiology.
Traité des Maladies des Yeux.
St. Thomas's Hospital Reports.
Dr. Austin Flint: Relations of Urea to Exercise.
Dr. Ziemssen: Cyclopædia of the Practice of Medicine. Vol. IV.
A Message to the Churches.
Mr. Berkeley Hill: On Bandaging.
Transactions of the National Association for Promoting Social Science. 1875.

Notes, Short Comments, and Answers to Correspondents.

TRANSMISSION OF RINGWORM FROM HORSE TO MAN.

THE transmission of the epiphytic disease, *Tinea tonsurans*, to man (says the *Veterinary Journal*), though long ago fully established as possible, yet is not so common an occurrence as to justify us in withholding from publication an interesting case which recently came under observation. A short time ago Lieutenant P——, belonging to the mounted portion of the Royal Engineers, purchased as a charger a well-bred, fine-skinned brown horse, five years of age. A few days after the horse joined, a few small "pimples," supposed to be due to surfeit, were observed on the left side of the croup and quarter, but nothing was thought of them. Soon, however, in consequence of the rapidity of their spread, attention was directed to them, when the skin in the region named was found closely sown with patches and points, due to the rapidly fructifying conidia of the *Trichophyton*. The disease had evidently been in existence for a long time. About the middle of March, the groom who had attended the horse since its arrival in barracks came to know whether a sore place on his arm was due to the disease which had affected the animal's skin. There undoubtedly was an unmistakable patch of *Tinea circinata*, measuring one and a half inch in diameter, on the inner aspect of the right arm, a little above the wrist. The patch was regularly circular in outline, the margin being well defined; the base was much inflamed, particularly at the circumference; there were no vesicles, these having in all probability been ruptured by the bandage which had been wrapped round the arm. The irritation had been so great as to excite pustulation in the centre of the patch, where, as well as at the border, there was so much infiltration as to raise the diseased portion of the skin above the surrounding level; here and there were whitish scales covering the infiltrated surface. This pathological condition of the cutis had only been in existence for two or three days, and the growth of the fungus had been so rapid that the groom himself was astonished at the speed with which a little red spot had become a large sore place. The man was placed under the care of the regimental surgeon.

Mr. O. E. A. Lewis.—We must refer our correspondent to our files.

SCHOLARSHIPS AT MEDICAL SCHOOLS.

To the Editor of THE LANCET.

SIR,—In the list of scholarships and prizes published in the prospectus issued annually by the Council of the London Hospital Medical College, I find that a scholarship of £20 is awarded to the first-year student who passes the best examination in Human Anatomy at the end of the winter session, provided he evinces sufficient merit.

Now, Sir, I opine that by this statement we are to suppose that only such questions will be put as may *fairly* be expected to be answered by those students who have worked hard during their first session both in reading and dissecting, and who have attended regularly the lectures on Anatomy delivered at that school. The examination for this scholarship has recently taken place, and a day or two ago a notice was posted up in the College, to the effect that the scholarship would not be awarded this year, as every candidate had failed to obtain the requisite number of marks.

The following are the questions which were given in the written examination, and I ask you, Sir, whether in your opinion these are *fair* questions to be asked of students at the end of their first session:—

1. What nerves enter and leave the sphenoid bone? Name the foramen through which each nerve passes, and give its apparent and deep origins from the brain.
2. Give the course and distribution of the facial nerve.
3. Describe the clavicle.
4. Give the branches, relations, and anastomoses of the profunda femoris. What do you understand by the terms *segmental*, *transsegmental*, and *composite* as applied to arteries? State instances of each variety.
5. Supposing the abdominal viscera removed, how would you prepare a side view of the pelvis? Give all the details of the dissection in a female subject, and enumerate the structures brought into view.
6. Describe the structures met with in dissecting a piece of the ileum near its termination. The peculiarities of the mucous membrane and the mode of termination of the vessels and nerves should be included in the description.

It is also worthy of note that since 1857 up to the present session (1875-6), out of the large number of scholarships which are given annually to students of this College, only one has been withheld from deficiency of merit; whereas out of the five scholarships that have been offered for competition to first-year students this year, only one is to be awarded, and that to a son of one of the staff.

Yours truly,

April, 1876. A BLOCKHEAD.

*** In giving publicity to the above letter, we wish to point out that it is greatly to the credit of the students at the London Hospital that none of them had scamped their work sufficiently to be able to carry away the scholarship on such questions. If first-year's students had done their work thoroughly and properly, it would be impossible for any of them to answer such unreasonable questions, and that none were found who could do so speaks more for the diligence of the students than for the tact of the examiners.—ED. L.

AN OLD MEDICAL BOOK.

IT is reported that the learned Orientalist, Ewers, has just discovered at Cairo a medical book written 3500 years ago. The time of publication is coeval with the rule of Joseph in Egypt.

B. C. D.—Apply to Hansard, Great Queen-street.

NORWEGIAN LEPRA.

DR. NEUMANN, of Vienna, has published in the *Allg. Wien. Med. Zeit.* (March 7th, 1876) a short and able article on the etiology of this disease. Authors are not quite agreed whether it is hereditary or not; but it would appear that it is contagious. Low lands on the coast and bad food and shelter have much to do with the appearance of the disease in both hemispheres. The prognosis is generally very bad; the patients mostly perish of marasmus, pneumonia, phthisis, albuminuria, &c. The author makes a statement which, at least as regards Scotland, would require confirmation. He says that in Norway the vas deferens of boys affected with lepra is tied to arrest procreation, and that in *Scotland* castration is performed upon leprous lads for the same purpose.

"CHEIRO-POMPHOLIX."

To the Editor of THE LANCET.

SIR,—I am somewhat amused and surprised to find in your journal of April 15th, p. 563, an old enemy of mine depicted and described as a new disease, under the name of cheiro-pompholix and dysidrosis. This affection has tormented me and others of my family since childhood, and I have always hitherto considered it a form of eczema, especially akin to that form called "solare." Possibly some description of it from memory may be of interest.

I may premise that my skin is thin and very dry; that perspiration in the winter time takes place only in the face, the axilla, the feet, and hands; in the summer from the same parts in a major degree, and from the other parts of the body in a minor degree. As I child I remember being tormented by impetiginous eczema, chiefly about the forehead, nose, and lips. I can also remember periodical sick headaches (of the form migraine) following any unwonted exertion, bodily or mental, or any excess in diet. This habit has persisted through life, and in my own case I can only look upon it as dyspeptic in origin, and not a neurosis, and as the fault of a gouty diathesis, though I have never had an actual attack of gout. I may add that in frosty weather my skin is very liable to crack and chap on the arms, calves, backs of hands, and that a considerable amount of irritation is then experienced of a similar character to that experienced in summer, though rarely the sago-grain-looking vesicles are produced in winter. The hang-nails are also very rapid in growth, liable to crack, and cause painful fissures. But the worst is in summer time, when under the ones of cricket, fives, or other occupation inducing exercise, elevating the temperature, and causing free perspiration, an intense irritation is experienced, chiefly between the fingers in their upper aspect, on the inner aspect of the wrists, and the outer margins of the palms; this is followed in a few hours by the "sago-grain eruption," which is, in truth, small collections of sweat deeply imbedded under the stout and thickened skin, which I am sorry to say clothes the soles of my feet and palms of my hands. If I can resist the temptation to scratch, which is almost irresistible, and to which if I once yield I must go on till I liberate the collection of sweat by my nails, I find by experience that the vesicles dry up in a few days into a scab of a light brown colour; but generally the irritation is too great, and the pleasure of scratching such, that human nature yields; and, once begun, I must go on till the tension is relieved, and blood mixed with a watery fluid issues. In the stage of irritation before scratching, a cold knife or marble applied often relieves the irritation, and I have dallied with the irritation by drawing the blunt edge of a knife over the swollen parts. The best application I have found to be bathing in lukewarm water, and free application of nitric oxide of mercury ointment, six grains to the ounce. Subsequently the cuticle dries, peels off, and leaves a red, thinly skinned, very tender surface, with thickened skin around its margins, very liable to crack, and very irritable. This after-condition is much aggravated if scratching has been freely resorted to. Gloves, of course, cannot be worn in warm weather, and kid gloves would aggravate matters intensely. The chief preventive is to keep the hands cool; for as often as the blood becomes heated, irritation is set up, and a fresh attack of vesicles is produced. I may also add that the skin of the forehead is very liable to become chafed, and pour out a serous fluid, from the pressure of the hat; at the same time the skin of the feet and tips of fingers perspires very freely, as also the face; but these are not affected as are the other and thicker parts of the hands. I have found also by experience that indulgence in malt liquors, in salted or spiced food, in tea and coffee, the heavier wines, together with constipated bowels, has aggravated the affection, and also the tendency to migraine; that regularity of diet, the use of milk and starch, free purgation by sulphates of soda and magnesia, and moderate exercise have greatly lessened these tendencies. My headaches are now reduced to four or six in the year, instead of every fortnight, as they once were; and my attacks of cheiro-pompholix are now very slight in comparison to those that tormented me in my younger days, when I was more actively disposed, and always in hot weather was ready to tear at some portion or other of my unlucky hands. I, however, cannot consider myself as a subject of great nervous debility, nor subject to extreme depression of spirits. I have always been active in mind and body, fond of exercise, and enjoyed life; and I have always considered the affection in my case as a retention of sweat, aggravated by a thickened cuticle in an irritable and eczematous skin. The same thing I have observed in one of my children, and in an aged relative, who is always tormented in hot weather by the same complaint; but in their case the cuticle is not thickened as in my person.

Yours faithfully,

ALEXANDER WALLACE, M.D.,
Physician to the Essex and Colchester Hospital.

Colchester, April, 1876.

J. C. S.—There might be urgent circumstances, or circumstances of very intimate friendship, in which it would be quite right to do so; but otherwise it is not advisable to visit the patient of another medical man confined to his bed.

A DISCLAIMER.

To the Editor of THE LANCET.

SIR,—Will you oblige me by informing your readers in your next issue that I am not the gentleman alluded to under the heading of "How a Beggarly Medical Salary is Perpetuated."

Yours obediently,

ARTHUR GRAHAM, Surgeon.

Park Gate and Rawmarsh, Rotherham, April 21st, 1876.

FEEDING OF INFANTS.

SPITE of the strenuous and persistent efforts of the intelligent and the humane to indoctrinate the people with some knowledge of elementary dietetics, especially as relates to the nurture of infants, cases are occurring every week in which injudicious feeding has been attended with a fatal result. Thus at an inquest held last week at Harrogate on the body of an infant, a month old, who was found dead by its mother's side one morning, Dr. Deville is reported to have deposed that in his opinion the child had died from convulsions consequent on the ingestion of improper food. He found that the mother had given it sopped bread, with milk and sugar, and a "little brandy as it had stomach-ache."

F. G.—We cannot prescribe or give an opinion on the case. Our correspondent should rest content with the treatment of her medical attendant.

CASE OF STAB IN THE ABDOMEN.

To the Editor of THE LANCET.

SIR,—I think the notes of the manslaughter case which was tried at the recent Northampton Assizes may be of interest to many of your readers. The man's life might probably have been saved had it not been for the escape of a lumbricoid worm from the intestines. The following notes I took while assisting, last long vacation, the surgeon in whose practice the case occurred.

On Tuesday evening, Sept. 21st, Mr. Price was summoned to Burton Latimer, a village four miles from Kettering, to a man who had been stabbed in the abdomen with a pocket-knife after a public-house quarrel. The stab had penetrated through the waistcoat, corduroys, and shirt. A wound was found on the left side of the abdomen, with omentum protruding to about the size of a hen's egg. The bleeding had ceased. The omentum was gently cleansed with warm water and returned; the edges of the wound were brought together, and a pad and bandage applied, and the thighs were propped up towards the abdomen. There had been an escape of peritoneal fluid, but not stained with fæcal matter. The man had been sick once. He was given thirty minims of tincture of opium, to be repeated in four hours.

Sept. 22nd.—8.30 A.M.: The patient had passed a tolerably quiet night after the opium, but had been sick once. Pulse and temperature had both risen. The opium was continued.—4.30 P.M.: He had been sick several times during the day. There was tenderness over the abdomen. The medicine had returned. Pulse 140; temperature higher than in the morning. He was sent some morphia pills (a quarter of a grain).

23rd.—11.30 A.M.: The sickness during the night had displaced the pad and bandage; there was slight bulging at the wound. The pad was wet with peritoneal fluid, but had no fæcal stain. He had passed a restless night. Temperature very high. He had passed a motion during the night free from blood. The morphia pills were continued during the day. The sickness continued.—9.30 P.M.: Hypodermic injection of one-sixth of a grain of acetate of morphia solution. The pain over the abdomen had been extreme throughout the day, and he had not been able to bear the bedclothes. The police were informed of the dangerous condition the patient was in.

24th.—8.30 A.M.: He had slept after the injection; there had been no sickness while the effects of the morphia continued, but he had been sick once or twice since daylight. The tenderness over the abdomen was not so great; the pulse and temperature were lower. The injection of morphia was repeated. The morning of the next day (25th) was fixed for the magistrates to take the patient's deposition, no immediate danger being apprehended, as he was certainly better this morning.—9.30 P.M.: Injection of morphia. Patient had been easier the greater part of the day; pulse diminished in volume.

25th.—This morning, a few minutes before 6 A.M., he was suddenly taken worse, complained of excruciating agony in the abdomen, and sank in a little over an hour's time.

Post-mortem examination at 2 P.M.—Well-nourished, fairly healthy man, aged twenty-seven. Abdomen very much distended. On removing the bandages and pad, they were seen to be moist with bile-stained fluid. There was a slightly curved wound, about one inch in length, on the left side, about two inches above the anterior superior spine of the ilium, and four inches from, and on a level with, the umbilicus. It could not be called a clean cut, but resembled one which might have been caused by a stab. A small portion of omentum could be seen in the mouth of the wound, with some extra swelling, extending for a radius of about two inches round the wound. On the outer side of the left thigh was another slightly curved wound, rather more than an inch in extent, about two inches deep, in an oblique backward and downward direction, evidently caused by a stab with a partially sharp weapon; could not be called a clean cut; the sides of this wound had been brought together by a silver suture. Lungs healthy; no adhesions. Heart healthy. Abdomen very much distended with gas and peritoneal fluid. On opening it there were some slight adhesions and bands of recently organised lymph connecting and scattered over the coils of intestines. Near the seat of the wound there was bruising and ecchymosis of the subcutaneous fat. Partially in the wound and immediately beneath was a collection of omentum, torn, inflamed, and matted together, about the size of a hen's egg. On removing the omentum, the small intestines beneath were inflamed and slightly adherent to each other; in one coil there was a small hole about large enough to admit a small pea. The mucous membrane of the interior of the bowel was obtruding, and completely filled the aperture. All round was newly organised lymph, which appeared to have completely covered the hole, but had been recently broken down. On removing the bowels for examination, there was found behind them a living Ascaris lumbricoides, which had evidently passed through the hole in the intestine, then in process of healing, about six o'clock on the morning of the man's death, when he became so suddenly worse.

I remain, Sir, yours truly,

W. E. STRAVENSON, M.R.C.S., &c.,
Late House-Surgeon to St. Bartholomew's Hospital.

Downing College, Cambridge, April 10th, 1876.

THE NEW FACULTY OF MEDICINE OF GENEVA.

THE teaching *personnel* is composed as follows:—Charles Vogt and F. W. Zahn, who have been elected some time. The latest appointments are, S. L. Laskowski (Anatomy); G. Juillard, junior (Clinical Surgery); L. Revilliod (Clinical Medicine); S. J. Reverdin (Surgery); P. L. Dunant (Hygiene); and Brown-Séquard (Physiology).

FEMALE DOCTORS.

L'Union Médicale of April 20th has the following paragraph:—The Committee appointed at St. Petersburg to examine the proposal of establishing lectures for ladies at the University has reported against the admission of women to the benefits of University tuition. At Prague the Academic Senate has decided that neither students nor simple auditors of the female sex should be admitted to lectures. It seems, says the same journal, rather contradictory that the Russian Government should allow women to study and practise medicine, and at the same time prevent women from attending University lectures.

SCOTCH POOR-LAW MEDICAL RELIEF.

To the Editor of THE LANCET.

SIR,—As it is not very likely that many Scotch Poor-law medical officers will have the opportunity of seeing the Bill brought in by Mr. Secretary Cross and the Lord Advocate, and which was issued to members on Friday last, the 28th ult., I will, with your permission, quote the 27th clause, which provides that "the Parochial Board of every parish shall appoint a fit person, or persons, to be medical officer, or medical officers, of the poor in such parish, who shall be paid a suitable salary, the amount of which shall be fixed with due regard to the population and extent of the parish and to the number of paupers, and such salary shall be exclusive of the cost of medicines. The Parochial Board shall forthwith report to the Board of Supervision the name and address of every medical officer appointed by them, and the amount of the salary to be given to him, for their approval."

The 28th clause provides that one-half the stipend of the medical officer, and half the cost of medicines supplied to the sick, shall be paid by the Lords Commissioners of Her Majesty's Treasury, and that the Board of Supervision shall from time to time frame rules and regulations for the administration of medical relief, &c. &c.

The 39th clause provides that medical officers shall only be removable from office by the Board of Supervision, and then only for neglect or incompetence.

It will be seen from the above that the Bill, if it becomes law, will place the Scotch Poor-law medical officer, as far as small towns and rural districts are concerned, in a far better position than his *confrère* in England and Wales, who still has to find all medicines and appliances from too frequently a most inadequate stipend; but in order to secure these benefits, I advise that Scotch medical officers should petition. The Bill is pretty sure to provoke much opposition, and unless Scotchmen exert themselves they may find some of the advantages now opening up to them eliminated in Committee.

It should never be forgotten that when Mr. Stansfeld brought in his first Public Health Bill, clauses were inserted providing for the establishment of Poor-law dispensaries; but by some hocus-pocus management, either by the permanent officials at the Poor-law Board, or some influence brought to bear on the President, the clauses were withdrawn from the second edition of the Bill, and never since then has the question been mooted in Parliament.

I am, Sir, yours obediently,

Dean-street, May 4th, 1876. JOS. ROGERS.

RINK ACCIDENTS.

A CORRESPONDENT writes:—"It is said by some that serious accidents are of frequent occurrence on the skating rinks, and by others that, considering the great numbers who rink, the serious accidents are few in number. Can any of your readers give me an idea as to which view is the correct one?"

Mr. J. K. Barton (Dublin) is thanked. It shall be published at an early date.

MEDICAL SCHOOLS IN FRANCE.

To the Editor of THE LANCET.

SIR,—In looking through some back numbers of your journal, I notice that it is reported that medical schools are formed at Paris, Montpellier, Nancy, Bordeaux, Lyons, and Lille. Will you kindly inform me whether these schools grant degrees or diplomas? Are they in connexion with Universities? Also, will you tell me what degrees in medicine and surgery may be obtained from the new Catholic Universities in France, called "free Universities"?—whether they give the right to practise in France?

Yours truly,

Sheffield, April 10th, 1876. H. J. HARDWICKE, M.D.

*** The medical schools at Paris and Montpellier have existed for centuries. They are termed Faculties of Medicine, and form part, with Faculties of Letters, Science, &c., of the great institution, comprising the whole country, known under the name of the "University of France." The third school (Nancy) is simply the Faculty of Medicine of Strasburg, transferred to Nancy since Alsace has fallen into the hands of the Germans. This Faculty of Nancy belongs, therefore, to the University of France; so also will the Faculties of Lyons and Bordeaux when fully organised. These two latter have but very recently been planned and sanctioned by the Government. As to Lille, it is quite a different matter. In the first place, it should be noticed that lately the French Legislature have allowed free Universities to be founded by the side of the University of France. A few have been started, principally under clerical influence. Among these must be reckoned Lille. But they have hitherto confined themselves to creating Faculties of Theology, of Law, &c., being unable from circumstances to add a Faculty of Medicine, which would require facilities for clinics &c. The free Universities are not as yet empowered to grant degrees or diplomas.—ED. L.

HAY ASTHMA.

To the Editor of THE LANCET.

SIR,—Can you or any of your readers recommend with confidence a drug or a place likely to do good in the above complaint? I shall be extremely obliged for any suggestion in the matter.—Yours obediently,

April 26th, 1876. INQUIRENS.

MEDICAL MEN IN THE FRENCH CHAMBER OF DEPUTIES.

WE lately alluded to the number of medical men in the Chamber of Deputies of France. *L'Union Médicale* published the list, which amounts to 40, with the localities they represent. A very important step has been taken by these members of our profession. A certain portion of them, to the number of about twenty, have constituted themselves into a committee, which, independently of politics, intend to discuss questions referring to hygiene and sanitary science.

J. McK.—If our correspondent will consult our advertising columns, he will often meet with what he requires.

THE TREATMENT OF ACUTE ORCHITIS.

To the Editor of THE LANCET.

SIR,—I have read with much interest the communications on the treatment of acute orchitis which have from time to time appeared in your columns, and confess that I am amazed at the courage that English patients exhibit when they submit to the heroic treatment given them by Mr. Henry Smith and others of your correspondents. I am sure, speaking from a somewhat extended experience in these cases, that no one of my patients would ever have submitted to a puncture. This I say the more emphatically because I have for several years past treated these cases in a way which is to my mind infinitely more satisfactory in every respect, both to surgeon and patient, than any one or all of the numerous plans proposed and practised by your many correspondents.

This leads me to state my plan of treatment, and I premise with the declaration that while the application of the principle may have been original with me, yet the principle itself is a very old one, and therefore no credit attaches to my application of it. The point to be gained in the treatment, as it appears to me, is to reduce the swelling as rapidly as possible. This may be attained in numerous ways, notably by the old method of "strapping." But strapping the organ is open to two very serious objections—1st, that it does not furnish an equable support and pressure; and 2nd, that it has to be frequently renewed, and thus makes too much work for the surgeon. All this I avoid by simply taking what are called "male safes" or "condoms," two of which I combine by introducing the one within the other, and drawing this "glove," as it were, over the testicle. I have lately used the toy balloons, which are made of india-rubber, for the same purpose. This is all I do for these cases. The rubber exercises equable and continued pressure upon the testicle, and the patient walks away very much happier than any punctured cases. I am a little surprised that none of your correspondents ever hinted at this plan, seeing that I published it nearly or quite three years ago. No internal treatment of any kind is deemed necessary.

Yours respectfully,

Fort Wayne, Indiana, April 3rd, 1876. JOSEPH R. BECK, M.D.

To the Editor of THE LANCET.

SIR,—I have for the last several years watched with great interest the correspondence in your valuable journal on the various methods of treating acute orchitis. When a student at Guy's, Mr. Cock used to treat his cases very successfully by making a series of punctures in the scrotum with an ordinary bleeding lancet, and fomenting with warm water to promote the flow of blood, which was generally followed by great relief in a very short space of time. I practised this mode of treatment with great success for several years, especially when combined with five grain doses of Dover's powder given every fourth hour, together with rest and elevation of the inflamed gland. But of late I have pursued a plan of treatment (I believe first introduced by the late Mr. Moore, of the Middlesex Hospital) which has proved in my hands more efficacious, and which, I think, recommends itself for its extreme simplicity and inexpensiveness; moreover, in private practice patients have a dread of cold steel when it can possibly be avoided. The testicle is first immersed in water as hot as can be borne, and kept in it from ten to fifteen minutes, immediately to be followed by a stream of cold water poured over it from a height for five minutes. The latter causing a certain amount of aching pain, and, by contracting the dartos, corrugates the scrotum, speedily diminishing the size of the testicle, with subsidence of the inflammation and pain, the patient experiencing relief in a very short time. The hot and cold water may have to be repeated two or three times a day for a few days; but frequently the patient is so far recovered in the course of four-and-twenty hours as to be able to follow his usual avocation without any inconvenience, requiring no further treatment beyond the continuance of the suspensory bag.

I remain, Sir, your obedient servant,

Worksop, Notts, April 24th, 1876. EDWIN LLOYD, M.D.

DIAGNOSIS WANTED.

To the Editor of THE LANCET.

SIR,—I have a patient who has been suffering on and off for the last five or six years from an intense irritation of the skin of the whole body. She is a person about the age of forty-five, healthy in every other respect, with the exception of a certain amount of tendency to rheumatic gout, and lately of quinsy. She describes this irritation as beginning as if a lot of insects were creeping over her, and it extends from her hands and feet, and goes over the whole surface of her body, but is more particularly developed in the folds of skin at her elbows and in her neck. Although this irritation is so great, there is nothing at all to be seen, and the skin only becomes red after continual rubbing. Latterly the disease has taken rather an intermittent form, and sometimes it disappears for months at a time, but hitherto has never left her for more than six or eight months, and for the last three months the irritation has been almost more than she can bear. I believe almost everything has been tried, and she has consulted several of the most eminent physicians, but hitherto without any appreciable relief.

I should be glad if any of your readers could suggest a remedy or even name the disease, as I have never met with the like before, nor have any of the physicians consulted been able to give it a name.

Yours truly,

April 26th, 1876. X. Y. B.

TREATMENT OF THE ITCH.

L'Union Médicale gives, under the name of Wilhem Petters (without further indications), the advice of using Peruvian balsam or styrax mixed with two parts of oil, in lieu of sulphur ointment. Very gentle frictions with the balsam or the styrax, without previous soaping, will destroy the acarus, as the balsam very easily penetrates into the furrows of the skin without the latter being torn. In this way the eczematous eruptions following the use of sulphur are avoided.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—In your issue of Feb. 12th last I read with much satisfaction a letter signed "A. M. D.," on the subject of the present discontented feeling prevailing in our department, and wish that all the zeal which has been shown by your numerous correspondents on this subject had been tempered by discretion in a similar degree. That we have very just grounds for discontent, nobody acquainted with the facts can deny; but much more harm than good has been done to our cause by a want of calm moderation in our demands, and too much anxiety for an increase of rank and gold lace, which only brings upon us ridicule and discredit. Our chief, and I might almost say only, causes for complaint are—1. Slowness of promotion. 2. Treatment on the subject of leave. 3. Our present undefined position. The first of these should be remedied by—Firstly. Optional retirement after twenty years' full-pay service on £300 per annum, with one shilling a day extra for every additional year of service up to thirty, when retirement should be compulsory for all executive officers; and secondly, by a limited tenure of office in the administrative ranks. Thus: every deputy surgeon-general at the end of five years in that rank should be placed on half-pay, and from these officers surgeon-generals should be selected, who should also hold their appointments for five years only, and then return to half-pay, the Director-General being chosen from among such officers, and similarly holding office for five years, instead of seven as at present. By these two measures I believe promotion would be made to flow on satisfactorily, and at any rate we should not see, as we do now, deputy surgeon-generals spending in that rank as many years as I and very many others passed in the lowest grade of the department. The second ground of complaint I have enumerated should be at once and wholly removed by placing medical officers on precisely the same footing as all others in the matter of leave. The last, though by no means the least, of our causes of discontent should be done away with without any further delay by the entire abolition of all regimental appointments and "attachments," and our thorough and complete unification as a military department, with responsibilities, quarters, mess, and uniform of our own, as distinct and separate as are those of the R.A. and R.E. from each other and the rest of the army.

Your obedient servant,

India, March, 1876. A SURGEON-MAJOR.

M.B. Lond., F.R.C.S., &c.—We sympathise with our correspondent, but practically he can do nothing. He may sue in the County Court the party on whose behalf he was subpœnaed (not the solicitor), and he will recover probably a guinea.

"A CASE OF DIFFICULT PARTURITION."

To the Editor of THE LANCET.

SIR,—May I request the favour of this insertion, in answer to Dr. Wiltshire's able comments on a case of "Difficult Parturition," kindly recorded in THE LANCET of April 1st.

First, as regards sex. Of the six children mentioned in that report, all were boys but the fifth.

As regards size, there was little apparent difference, as far as can be elicited from the patient, who believes the first and the fifth were somewhat smaller—i. e., the eldest male and only female.

I am indebted to Dr. Wright for this information, which, therefore, corroborates the correctness of Dr. Wiltshire's views.

Your obedient servant,

Upper Kennington-lane, April 29th, 1876. H. ST. J. BULLEN.

ANÆSTHETICS.

To the Editor of THE LANCET.

SIR,—In reading Dr. Burney Yeo's interesting case of nitrous oxide gas being administered when serious heart disease existed, the following suggests itself to me—viz.: That nitrous oxide gas acts as a stimulant to the heart's action as well as an anæsthetic, also, from the large quantity of oxygen in its composition, facilitating the elimination of carbon by the lungs during anæsthesia; chloroform and ether, from containing much carbon, having an opposite tendency. The patient mentioned would most likely have died under either of the latter anæsthetics. Yours obediently,

May, 1876. AN OBSERVER.

THE UNIVERSITIES AND DEGREES IN MEDICINE.

To the Editor of THE LANCET.

SIR,—Advocates for the admission of senior practitioners to examination for University degrees in medicine ignore apparently the aim, groundwork, and result of University teaching. What your correspondent, "Cantabriensis," has stated of social training is surely even more applicable to mental. Is not the University course of study specially devised to train the mind to take broader and more logical views of whatever comes under its observation? No final pass examination can elicit the value of this drilling. It cannot be estimated by one who has not experienced it. He probably would question or scoff at the philosophy of making Biology, Physics, Logic, Moral Philosophy, &c., a necessary study for the medical student. But it starts the young graduate ready trained to make the utmost use of the experience of his after years. After ten or twenty of these he finds others clamouring to be recognised his equal by passing the last of the long series of examinations which merely completed his early studies! Is this logical?

I am, Sir, yours &c.,

May 1st, 1876. LONDINENSIS.

THE NEW LYING-IN HOSPITAL AT PARIS.

THE new hospital is shortly to be erected close to the Luxembourg, and will present a new feature. A ward will be annexed for cases of female complaints and the diseases of new-born children. For the purpose of teaching, this may be wise; but as regards sanitary precautions it may be the reverse.

Roland, (Dublin.)—Consult a surgeon.

A CAUTION.

To the Editor of THE LANCET.

SIR,—We, the undersigned, beg to put our professional brethren on their guard respecting a female who called upon us yesterday. Her age is about forty; height about 5 ft. 4 in.; complexion florid; and dressed somewhat as follows: dark bonnet and veil, light shawl, dress dark, cotton gloves, cuffs with black studs. She requested each of us to visit a lady recently arrived from Cheshire, who had been recommended to send for us. She stated the name of the lady was Tyler, and gave us different addresses. Since the visit of the aforesaid female we have each missed personal property, and have placed the matter in the hands of the police. Other medical friends in our neighbourhood have been visited by the same or a similar individual, to their cost.

Yours obediently,

H. CRIPPS LAWRENCE,
158, Queen's-road, Bayswater.
GEOFFERY HETT,
1, Ledbury-road, W.

May 3rd, 1876.

HEALTH OF CALCUTTA.

To the Editor of THE LANCET.

SIR,—By an oversight I did not see THE LANCET of Feb. 26th, 1876, until the night of March 24th. I lose no time in explaining the error you have made in crediting me with the improved health of the port of Calcutta. My duties as surgeon to the Port Commissioners have reference solely to the persons, Europeans and native, employed by the Commissioners. These are possibly about 3000 in number. The sanitary arrangements of the port are administered by Dr. John Gay French, B.M.S., health officer of the port, and to him, if to any, your remarks and congratulations will apply.

Yours faithfully,

Calcutta, March 27th, 1876. WALTER K. WALLIS, M.R.C.S. Eng., &c.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Thorowgood, London; Dr. Wiltshire, London; Sir Edward Lee; Dr. Bucknill, Rugby; Mr. Wilson, Kendal; Dr. Ogston, Aberdeen; Dr. Alcock, Aldershot; Dr. Nichols, Chelmsford; Mr. Sanders, South Molton; Mr. Graham, Rotherham; Mr. Allen, Gloucester; Mr. Barton, Dublin; Mr. Bullen, Kennington; Mr. Attidge, Newcastle; Mr. Wisher, Sheffield; Dr. Cass, Peterborough; Dr. Verhave, California; Dr. Dewar, London; Mr. Lewis, Melsonby; Mr. Zacharie, London; Mr. Arthur, Bradford; Mr. Dunlop, Bradford; Mr. Macdonald, Edinburgh; Messrs. Cornish, Manchester; Dr. Muscroft, Pontefract; Dr. Spender, Bath; Mr. Bryden, Stockport; Mr. Jackson, Creeton; Mr. Atkinson, Rotherham; Mr. J. Gamgee, London; Mr. H. K. Lewis, London; Messrs. Edmonston and Douglas, Edinburgh; Dr. Leet, Dublin; Dr. Robbins, Claughton; Mr. Macmillan, Hull; Mr. Coathupe, Bristol; Dr. Pitman, London; Mr. Sargeant, London; Mr. Jackson, Sheffield; Dr. Rudkin, Elvington; Dr. Monckton, Maidstone; Dr. Wolfe, Glasgow; Mr. Harrison, Sheffield; Dr. Alexander, Bradford; Mr. Mansard, Bordeaux; Mr. Chater, Maidenhead; Mr. Craven, Gainsborough; Mr. Johnson, Hull; Mr. Williams, Stirling; Mr. Bedford, Wells; Mr. Wilson, Chester; Mr. Mason, London; Mr. Orton, Stratford; Mr. Clayton, Waltham; Mr. Dunn; Dr. Wardell, Tunbridge Wells; Dr. Morris, Spalding; Dr. Love, Wolverhampton; Mr. Rhodes, Hudders-field; Mr. Gawith, London; Rev. A. F. Thomson; Mr. Blackett, London; Dr. Lacy; Mr. Sworder, London; Dr. Lee, Washington, U.S.; Dr. Clarke, Leicester; Mr. Mortimer, New York; Mr. Hookham, Birmingham; Mr. Griffiths, Plymouth; Messrs. Macmillan and Co.; Mr. J. J. Ward, Woodford; Mr. Barwise, Louth; Mr. Butler, Brighton; Dr. Vacher, Birkenhead; Messrs. Lawrence and Hett, London; Dr. Lockie, Carlisle; Dr. Oulton, Bradford-on-Avon; Mr. Paull, Bristol; Mr. Hefford, Rugby; The President of the Pharmaceutical Society; The Registrar-General of Edinburgh; Hope; J. C. S.; Roland; A Disgusted Young Surgeon; F. G., Birmingham; Londinensis; Visitor; Inquirens; B. C. D.; R., Edinburgh; The Head Master; Chemicus; An Observer; Ephemera; Medicus; The Registrar-General of Dublin; J. A. H.; Omega; An Essex Medical Officer; B., Huddersfield; H., Bath; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Wilson, Nottingham; Dr. Vardy, Portsmouth; Mr. Hunt, Petworth; Mr. Hine, Ilminster; Mr. Murrell, Acton; Mr. Bunting, Sneinton; Dr. Morson, New South Wales; Messrs. Southall and Co., Birmingham; Dr. Clark, Coleraine; Mr. Jenkins, Clapham; Dr. Eberle, Easingwold; Mr. White; Dr. Griffith, Portmadoc; Dr. Liveing, Dover; Mr. Hodgkins, Oxford; Dr. Hall, Sheffield; Dr. Slater, Ripon; Mr. Harris, Liverpool; Mr. Crofts, Burton-on-Trent; C. H., Sheffield; J. T. J., Towyn; Salus, Bridgwater; M., Chesham; Medicus, Edinburgh; M. B., Manchester; Epsilon; Medicus, Willenhall; Fides; Lady Superintendent; A. M. D.; A. H. R., Swansea; Locum Tenens; M. M.; Scrutator, Bristol; Medicus, London; H. G., London; H. A. S., Witney.

Edinburgh Courant, Welshman, Western Morning News, Newcastle Chronicle, Bucs News, Cork Constitution, Liverpool Post, Eastern Morning News, Surrey Advertiser, East London Observer, Metropolitan, Record, Manchester Guardian, and *Huddersfield Chronicle* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, MAY 4TH, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
April 28	29·51	W.	48	52	96	60	40	0·24	Cloudy
" 29	29·55	S.	48	51	91	53	44	0·26	Cloudy
" 30	29·69	N.E.	43	45	64	47	44	....	Overcast
May 1	29·97	E.	41	46	90	53	37	0·15	Cloudy
" 2	30·16	N.E.	40	44	89	50	35	...	Cloudy
" 3	30·30	N.E.	40	45	87	56	38	...	Cloudy
" 4	30·53	S.E.	43	47	90	59	39	...	Cloudy

Medical Diary for the ensuing Week.

Monday, May 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. General Monthly Meeting.

Tuesday, May 9.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Duncan, "On the Comparative Geology and Physical Geographies of India, Australia, and South Africa."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Mr. H. Morris, "On a Case of Congenital Hydronephrosis, with Remarks on the Secretion and Excretion of Urine in the Fœtus."—Dr. Fagge, "On the Lead Line in the Gums." — Dr. Gowers, "On Athetosis and Post-Hemiplegic Disorders of Movement."

Wednesday, May 10.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARK'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
EPIDEMIOLOGICAL SOCIETY.—8 P.M. Dr. Squire, "On Measles in the Dog"; "Notes, with additional Data, respecting the Early Development of the Cholera Epidemic of 1853-54 and 1865-66."

Thursday, May 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Voltaic Electricity."

Friday, May 12.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 8 P.M. Weekly Meeting. — 9 P.M. Mr. W. Froude, "On the Fundamental Principles of the Resistance of Ships."
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Maunder, "On three Cases of Subcutaneous Osteotomy of the Femur" (the Patients will be exhibited).—Dr. Duffin, "On a Case of Tumour of the Corpora Quadrigemina."—The President (for Mr. Leggatt), "On a Case of Intestinal Concretion passed per Anum."—Dr. Pearson Irvine, "On a Case of Diphtheritic Paralysis simulating extensive Lung Disease."

Saturday, May 13.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. F. J. Furnivall, "On Chaucer."

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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